3M BRAND MICROFILM

START OF ROLL

ROLL NO.

210

CONSTRUCTION CONTRACTS

8948—

OREGON DEPARTMENT OF TRANSPORTATION

1979 Willamina Ave.-26th 8948
Ave. Sec. Main St. in
Forest Grove. (Gr & Pave)

COA 5447 9-23-75

#8948

July 16, 1981

Mr. John D. Burdett
Director of Public Works
City of Forest Grove
P.O. Box 326
Forest Grove, Oregon 97116

Dear Mr. Burdett:

Your letter of July 2, 1981 requested clarification and justification for charges on the Willamina Avenue-26th Avenue Federal Aid Urban project. The Guidelines and Working Agreement for the FAU program states that "The applicant will pay 100 percent of the cost of any item in which the Federal Highway Administration will not participate". The charges you identified are non-participating by FHWA and clarification is as follows:

1) $766.05 preliminary engineering was charged prior to FHWA authorization on 9-23-75.

2) $58.72 interest paid to contractor (by State law) based on the amount owed contractor 30 days after contractor has fulfilled his contracted obligations.

3) $429.46 payment to contractor for furnishing mail box posts ($69.46) and setting mailbox posts ($360.00). $23.88 construction engineering is charge for preparation of final voucher sent to FHWA--a charge that occurs after final payment by FHWA.

I trust this will answer your questions, but if you need further clarification, please let me know.

Very truly yours,

ORIGINAL SIGNED BY
D. E. SWAN

D. E. Swan
Operation Programming Engineer

GEZ:pf

bcc: Jan Peterson
Jon Rose, Metro

forest grove

July 2, 1981

Oregon State Highway Division
Transportation Building
Salem, Oregon 97310
Attention: Accounting Dept. - FAU Projects

Gents:

We are returning your invoice No. 132064 relative to Federal Aid Urban Project M-5055(1) - Willamina Ave. - 26th Ave., Section Main St. - Washington County - Agreement No. 5447 - Contract No. 8948, for further clarification.

1) The City did the preliminary design, surveying and drafting of plans for this project and charged $3,289.96. Your itemized statement shows $8,123.17 for preliminary engineering with $766.05 charged directly to city as non-participating cost.

2) Interest paid contractor $58.72. Why was this paid and why is it charged 100% to city?

3) Non-participating costs for payment to contractor ($429.46) and construction engineering ($23.88), what are these for?

Please re-evaluate your invoice and show justification for those charges mentioned above.

Sincerely,

John D. Burdett
Director of Public Works

JDB:rg

cc: Herb Krieger, Accounting

NOTED
R. J. HACEK

RECEIVED
JUL 8 1981
HIGHWAY ACCOUNTING

8948

OREGON STATE HIGHWAY DIVISION

FORM 81-734-1150

HIGHWAY DIVISION INVOICE

NO. 132064

DATE	BILLING REQ. NO.	YOUR ORDER NO.
6-24-81	CC 81-30	

FØRESTG

City of Forest Grove
PO Box 326
Forest Grove, OR 97116
Attn: Daniel F. Duris, City Manager

CREDIT DISTRIBUTION

334-1909-296-00-000	1289.50
334-1034-296-00-000	29.80
324.02	1319.30
334-1909-295	(1289.50)
~~334-1034-295~~	(29.80)

MAKE CHECKS PAYABLE TO
THE OREGON STATE HIGHWAY DIVISION

SEND REMITTANCE TO:
OREGON STATE HIGHWAY DIVISION
TRANSPORTATION BUILDING
SALEM, OREGON 97310

DESCRIPTION	QUANTITY	UNIT PRICE	TOTAL PRICE
Federal Aid Urban Project M-5055(1)			
Willamina Ave.-26th Ave. Section			
Main Street			
Washington County			
Agreement No. 5447			
Contract No. 8948			
Total Cost			$120,199.30
Less Federal Funds			104,690.92
Less State Share			7,129.08
City Share			8,379.30
City's Advance Deposit			7,060.00
AMOUNT DUE			$ 1,319.30
Final Billing per attached itemized statement			

a

8948

Form 734-1191 (Rev. 5/77)

OREGON STATE HIGHWAY DIVISION

REQUEST FOR OUTSIDE BILLING

(OR ADVICE OF CASH TRANSACTION)

DATE	BILLING REQ. NO.	YOUR ORDER NO.
6-4-81	CC 2094	

CREDIT DISTRIBUTION

334-1947-295	$ 382.84
334-1017-295	$1,540.85

BILL TO: Code:

City of Beaverton

4950 S.W. Hall Blvd.

Beaverton, Oregon 97005

Attn: Lon Topaz, Community Development Director

DESCRIPTION: (Describe the service rendered, location, etc. Refer to agreements, letters and orders by which payer authorized the service.)	QUANTITY	UNIT PRICE	TOTAL PRICE
FINAL BILLING Per Attached Itemized Statement: Federal Aid Urban Project M-9088(2) Allen Blvd. at Lombard Ave. Washington County Agreement No. 6330 Contract No. 8751			
TOTAL COST			$40,104.68
Less Federal Funds			32,537.30
Less State Share			3,783.69
City Share			3,783.69
City's Advance Deposit			2,480.00
(Attach Itemized Statement to Invoice)			

Advance Deposit Amount	$ 2,480.00
Advance Deposit Previously Transferred to Highway Fund	$ 1,860.00
Balance	$ 620.00
Transfer to Highway Fund	$ 620.00
Refund Due	$ - - -
Partial or final request for billing	FINAL
Number of the previous request in connection with this service.	CC 1928

Amount Due . . . . . $ 1,303.69

Submitted by:

Gary E. Zehner

Gary E. Zehner

Approved:

D. E. Swan

D. E. Swan

SP*35736-734

OREGON STATE HIGHWAY DIVISION

ITEMIZED STATEMENT OF FINAL COSTS **DATE:** 6-4-81

CITY BEAVERTON **Contract No.** 8751 **Date Completed** 2-28-79

PROJECT # M-9088(2) **Section** Allen Blvd. at Lombard Ave.

PAYMENTS TO CONTRACTOR

ITEM	TOTAL COST
Preliminary Engineering	$ 4,828.77
Payments to Contractor	28,682.20
Construction Engineering	6,130.09
Project Management	12.49
Training	342.16
E.E.O. Monitoring	108.97
TOTAL PROJECT COST	$40,104.68
Federal Funds	32,537.30
BALANCE	$ 7,567.38
Non-Participating Costs:	
Construction Engineering	$ 2,182.41

State Share:
50% of $7,567.38 = $3,783.69

City Share:
50% of $7,567.38 = $3,783.69

Reference: Billing Form CC 2094

(MEMORANDUM)

FORM APPROVED BY COMPTROLLER GENERAL, U.S. MAY 12, 1966

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATE VOUCHER NO.

FHWA VOUCHER NO.

VOUCHER FOR WORK PERFORMED UNDER PROVISIONS OF THE FEDERAL AID AND FEDERAL HIGHWAY ACTS, AS AMENDED

APPROPRIATION

FHWA SCHEDULE NO.

THE UNITED STATES, DR., TO *(Insert official or depositary named in project agreement)*
Treasurer of the State of Oregon

PAID BY

ADDRESS
Capitol Bldg.
Salem, OR 97310

(For use of Paying Office)

STATE
Oregon

VOUCHER TYPE *(Check Appropriate Block)*

☐ CURRENT BILLING

VOUCHER PERIOD — FROM

TO

☐ OTHER PROGRESS

☐ FINAL VOUCHER (*)

FEDERAL AID PROJECT NO.
F-2003(2)

(*) Use Form FHWA-1447 for Final Voucher for a project constructed under certification acceptance or secondary road procedures (23 U.S.C. 117).

TOTAL ACTUAL COST	TOTAL PARTICIPATING COST	PRO-RATA OF PARTICIPATING COST CLAIMED FROM U.S.	TOTAL AMOUNT CLAIMED FROM U.S.	LESS PREVIOUS PAYMENTS	NET AMOUNT CLAIMED
$35,175.91	$33,993.50	86.30%	$28,304.22	$28,304.22	$ 0.00
4,328.77	4,328.77	86.30%	4,143.08	4,143.08	0.00
$39,504.68	$38,322.27	86.30%	$32,537.30	$32,537.30	$ 0.00

RECEIVED DIVISION OFFICE
BY Oregon DATE

DIVISION OFFICE REVIEW MADE
BY 12/16/80

PASSED FOR PAYMENT
V.A. Skaug, Controller

REMARKS

$ 0.00

12-18-80
TO TYPE
E

FORM FH-23A
(Rev. 5-76)

PREVIOUS EDITIONS ARE OBSOLETE

334-1017
334-1947

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS (Payee must not use this column)
	S.W. Allen Blvd. at S.W. Lombard Ave. (Beaverton)					
	PA #365, Allen Blvd.					
	Washington County					
	Preliminary Engineering					
	Type Code P.E.					
	Note		All Required		$ 4,888.77	
	Construction					
	Type Code 703					
	Final Contract Payment		Lump Sum		29,662.20	
	Construction Engineering					
	Note		All Required		3,362.33	
270	**#1 Signal Controller Testing**		All Required		1,000.00	
	Total Participating Construction Engineering				$ 4,362.33	
	Misc. Project Costs					
	Equal Opportunity Program Expense		All Required		100.00	
	Total Participating Costs				$37,913.27	
	Nonparticipating Items					
	Construction Engineering		All Required		1,962.41	
270	**#1 Signal Controller Testing**		All Required		340.00	
	Total Nonparticipating Costs				$ 2,302.41	
	Total Costs				$40,207.68	

Prepared based on Participating Costs as shown on Federal Billing as of 10/31/80.

AMOUNT CARRIED FORWARD . .

GPO 944 892

DESCRIPTION OF JOB OR DEPARTMENT		PREFIX		FUNCTION		GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	
	334	1943	901	00	N	1				25.75	
	334	1943	905	00	P	1				135.12	
	334	1943	911	00	P	1				2,322.28	
	334	1943	914	00	P	1			158.97CR	8.19	
	334	1943	920	00	P	1				72.50	
	334	1943	921	00	P	1				309.96	
	334	1943	923	00	P	1				21.82	
			TOT		P1				158.97CR	4,165.45	
			TOT		N1					25.75	
			** JOB TOTALS **				**		158.97CR**	4,191.20	**
ALLEN BLVD & LOCKPORD	CONT NO		FA PROJ NOS M		980002 100						STATE
	334	1947	296	00	N	9	Tr. St		96.22	29,818.09CR	
	334	1947	297	00	N	9	" Co			25,675.00	
	334	1947	298	00	N	9	" Fed		96.22CR	4,193.09	
	334	1947	901	00	P	1	Res Engr			1,591.06	
	334	1947	905	00	P	1	Fin. Des			254.65	
	334	1947	911	00	P	1	Sign.		112.14CR	1,308.33	
	334	1947	914	00	P	1	Ut. Lia.			53.73	
	334	1947	920	00	P	1	P.M.			89.50	
	334	1947	921	00	P	1	Specs			1,507.67	
	334	1947	923	00	P	1	Env.			32.73	
			TOT		P1				112.14CR	4,828.77	
			** JOB TOTALS **				**		112.14CR**	4,828.77	**
SW OAK & ROBIN/BASELINE&ROBIN	CONT NO		FA PROJ NOS RRS 032003 100								STATE
	334	1950	296	00	N	9			35.97CR	315.88CR	
	334	1950	298	00	N	9			35.97	315.88	
	334	1950	901	00	P	1				3.42	
	334	1950	905	00	P	1				133.09	
	334	1950	907	00	P	1			39.97	39.97	
	334	1950	907	00	N	1			333.97	333.97	
	334	1950	923	00	P	1				174.50	
			TOT		P1				39.97	350.98	
			TOT		N1				333.97	333.97	
			** JOB TOTALS **				**		373.94 **	684.95	**
BN & SPRRXING @ SE HRLL	CONT NO		FA PROJ NOS RRS 091001 100								STATE
	334	1960	296	00	N	9			.31CR	240.02CR	
	334	1960	298	00	N	9			31	240.02	
	334	1960	905	00	P	1				69.17	
	334	1960	911	00	P	1				138.46	
	334	1960	914	00	P	1				58.86	
			TOT		P1					266.69	
			** JOB TOTALS **				**		**	266.69	**

TOTAL TO DATE JOB COST SUMMARY — APRIL 1981 — PAGE 258

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX	FUNCTION	GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE BEG	ACTIVE YRS END
SW ALLEN @ LOMBARD, BVRTN — CONT NO 8751 # FA PROJ NOS M 088002 100							STATE	
	334 1017	201	00 P 1	Cont Pay.		28,682.20	79	79
	334 1017	295	00 N 9	Tr. City		1,860.00	79	79
	334 1017	296	00 N 9	" St.	1,253.78	30,254.22CR	79	81
	334 1017	298	00 N 9	" Fed.	1,253.78CR	28,394.22	79	81
	334 1017	900	00 P 1	Const Engr.	1,875.65CR	2,947.68	78	81
	334 1017	900	00 N 1	" "	1,887.13	1,942.41	78	81
	334 1017	900	01 P 1	" "		1,000.00	79	79
	334 1017	900	01 N 1	" "		240.08	79	79
	334 1017	920	00 P 1	P.M.		12.49	78	79
	334 1017	950	00 P 1	Training		342.16	79	79
	334 1017	985	00 P 1	EED		108.97	79	79
		TOT	P1		1,875.65CR	33,093.50		
		TOT	N1		1,887.13	2,182.41		
		** JOB TOTALS **		**	11.48 **	35,275.91 **		
SP XING @ MAPLE(FOREST GROVE) CONT NO		FA PROJ NOS RRS 156001 100					STATE	
	334 1021	270	01 P 1			25,541.02	78	80
	334 1021	270	03 P 1			1,476.93	78	80
	334 1021	270	03 N 1			30.78	78	80
	334 1021	296	00 N 9		31.33CR	26,155.13CR	78	80
	334 1021	298	00 N 9		31.33	26,155.13	78	80
	334 1021	900	00 P 1			6.98	78	80
	334 1021	900	04 P 1			1,439.77	78	80
	334 1021	900	04 N 1			211.62	78	80
	334 1021	915	00 P 1			569.82	78	80
	334 1021	915	02 P 1		33.90	33.90	78	80
	334 1021	920	00 P 1			17.43	78	80
		TOT	P1		33.90	29,051.25		
		TOT	N1			242.40		
		** JOB TOTALS **		**	33.90 **	29,293.65 **		
SW BOONES FERRY @ NYBERG — CONT NO 8825 # FA PROJ NOS TQM 091003 66						TQM 091003 01 STATE 33		
	334 1026	201	00 P 1			22,[illegible]12	78	80
	334 1026	201	00 N 1			14,[illegible]80	78	80
	334 1026	201	00 N 9			48,[illegible]21	78	80
	334 1026	286	00 N 1			119.51	78	80
	334 1026	270	02 P 1			1,945.[illegible]	78	80
	334 1026	291	04 N 9			14,[illegible]CR	78	80
	334 1026	295	00 N 9			22,[illegible]	78	80
	334 1026	296	00 N 9		6.72CR	11[illegible]CR	78	80
	334 1026	298	00 N 9		6.72	8[illegible]	78	80
	334 1026	900	00 P 1		.12	12[illegible]	78	80
	334 1026	900	00 P 8			[illegible]	78	80
	334 1026	900	00 N 1			[illegible]	78	80
	334 1026	900	00 N 8				78	80

8948

Form FS/A1291 (Rev. 5/77)

REQUEST FOR OUTSIDE BILLING

(OR ADVICE OF CASH TRANSACTION)

OREGON STATE HIGHWAY DIVISION

DATE	BILLING REQ. NO.	YOUR ORDER NO.
5-28-81	81-30	

CREDIT DISTRIBUTION

334-1909-295 $1,672.53
334-1034-295 $ 646.77

BILL TO: Code:

City of Forest Grove

P.O. Box 326

Forest Grove, Oregon 97116

ATTN: Daniel F. Duris, City Manager

DESCRIPTION: (Describe the service rendered, location, etc. Refer to agreements, letters and orders by which payer authorized the service.)	QUANTITY	UNIT PRICE	TOTAL PRICE
FINAL BILLING Per Attached Itemized Statement:			
Federal Aid Urban Project M-5055(1)			
Willamina Ave.-26th Ave. Section			
Main Street			
Washington County			
Agreement No. 5447			
Contract No. 8948			
TOTAL COST			$120,199.30
Less Federal Funds			104,690.92
Less State Share			7,129.08
City Share			8,379.30
City's Advance Deposit			7,060.00
(Attach Itemized Statement to Invoice)			

Advance Deposit Amount	$ 7,060.00
Advance Deposit Previously Transferred to Highway Fund	$ 6,060.00
Balance	$ 1,000.00
Transfer to Highwey Fund	$ 1,000.00
Refund Due	$ - - - -
Partial or final request for billing	FINAL
Number of the previous request in connection with this service.	CC 2006

Amount Due . . . . . $ 1,319.30

Submitted by: Gary E. Zehner
Gary E. Zehner

Approved: D. E. Swan
D. E. Swan

SP*35736-734

OREGON STATE HIGHWAY DIVISION

ITEMIZED STATEMENT OF FINAL COSTS **DATE:** 5-28-81

CITY FOREST GROVE **Contract No.** 8948 **Date Completed** 8-8-79

PROJECT # M-5055(1) **Section** Willamina Ave.-26th Ave., Main Street

PAYMENTS TO CONTRACTOR

ITEM		TOTAL COST
Preliminary Engineering		$ 8,123.17
Payments to Contractor		100,191.62
Construction Engineering		11,778.99
Interest Paid Contractor		54.72
Project Management		50.80
TOTAL COST		$120,199.30
Less Federal Funds		104,690.92
BALANCE		$ 15,508.38
Less Non-Participating Costs:		
Preliminary Engineering	$766.05	
Payment to Contractor	429.46	
Construction Engineering	23.88	
Interest Paid Contractor	54.72	1,274.11
AMOUNT TO BE SHARED BY STATE & CITY		$ 14,234.27

State Share: 50% of ($14,234.27 + $23.88) = $7,129.08

City Share: 50% of $14,234.27 = $1,274.11 - $11.94) = $8,379.30

Reference: Billing Form 81.30

(MEMORANDUM)

FORM APPROVED BY COMPTROLLER GENERAL, U.S. MAY 12, 1966

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

VOUCHER FOR WORK PERFORMED UNDER PROVISIONS OF THE FEDERAL AID AND FEDERAL HIGHWAY ACTS, AS AMENDED

STATE VOUCHER NO.

FHWA VOUCHER NO.

APPROPRIATION

FHWA SCHEDULE NO.

THE UNITED STATES, DR., TO *(Insert official or depositary named in project agreement)*

Treasurer of the State of Oregon

ADDRESS

Capitol Bldg.
Salem, OR 97310

PAID BY

(For use of Paying Office)

STATE

Oregon

VOUCHER TYPE *(Check Appropriate Block)*

☐ CURRENT BILLING

VOUCHER PERIOD — FROM 7-6-78 — TO 7-31-80

☐ OTHER PROGRESS

☒ FINAL VOUCHER (*)

FEDERAL AID PROJECT NO. M-5055(1)

(*) Use Form FHWA-1447 for Final Voucher for a project constructed under certification acceptance or secondary road procedures (23 U.S.C. 117).

	TOTAL ACTUAL COST	TOTAL PARTICIPATING COST	PRO-RATA OF PARTICIPATING COST CLAIMED FROM U.S.	TOTAL AMOUNT CLAIMED FROM U.S.	LESS PREVIOUS PAYMENTS	NET AMOUNT CLAIMED
PE	$ 8,123.17	$ 7,357.12	85.77%	$ 6,310.20	$ 6,310.20	$ 0.00
	112,052.25	111,568.07	88.18%	98,380.72	98,380.72	0.00
	$120,175.42	$118,925.19		$104,690.92	$104,690.92	$ 0.00

RECEIVED DIVISION OFFICE — BY — DATE

DIVISION OFFICE REVIEW MADE — BY — DATE

PASSED FOR PAYMENT — BY — DATE

REMARKS Oregon 3/11/81 V.E. Skoog, Controller

PE 334-1909
Const 334-1034

$ 0.00

FORM PR-20A
(Rev. 5-78)

PREVIOUS EDITIONS ARE OBSOLETE

OREGON STATE HIGHWAY DIVISION

REQUEST FOR TRANSFER OF COST DISTRIBUTION

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRI	AMOUNT	NOTATIONS (Payee must not use this column)
	Willamina Ave.-Main St. (Forest Grove) Section in Washington County					
	Preliminary Engineering					
	Type Code P.E.					
	Work by City of Forest Grove		All Required		$ 3,009.37	
	State		All Required		4,173.40	
	Total Participating Preliminary Engineering				$ 7,182.77	
	Construction					
	Type Code 6201					
	Roadway (Sta. 0+00 To Sta. 6+34)					
	Final Contract Payment Summary		All Required		99,762.16	
	Construction Engineering					
	State		All Required		11,805.91	
	Misc. Project Cost					
	Audit Expense (P.E.)		All Required		174.35	
	Total Participating Cost				$118,925.19	
	Nonparticipating Cost					
	Preliminary Engineeringg(State)		All Required		$ 766.05	
	Final Contract Payment Summary		All Required		429.46	
	Interest on Final Payment		All Required		54.72	
	Total Nonparticipating Cost				$ 1,250.23	
	Total Project Cost				$120,175.42	

Prepared based on Particlpatigg Costs as shown on Federal Billing as of 2/28/81

AMOUNT CARRIED FORWARD .....

...ROPRIATE...
VOUCHER FOR ...
FEDERAL ...
...OVED BY
...LER GENERAL
...12, 1966

DVER XING N MAIN MILLSBORO CONT NO FA PROJ NOS RRS 023002 100 STATE

334	1031	205	01	P	1			2,788.38CR		5,733.18CR	80	81
334	1031	270	01	P	1			27,883.78		57,331.78	80	81
334	1031	296	00	N	9		82.65CR	23,478.02CR		47,383.19CR	79	81
334	1031	298	00	N	9		82.65	23,478.02		47,383.19	79	81
334	1031	900	00	P	1					13.02	80	80
334	1031	940	03	P	1		179.96	1,069.70		1,069.70	81	81
334	1031	915	00	P	1			35.28		35.28	81	81
334	1031	920	00	P	1					45.08	79	80
334	1031	948	00	P	1			6.26		6.26	81	81
		TOT		P	1		179.96	26,206.64		52,767.94		
		** JOB TOTALS **					179.96 **	26,206.64 **		52,767.94 **		

MILLFORNIA RN-26TH RN FRST ERV CONT NO 8948 X FA PROJ NOS M 055001 100 STATE

334	1034	201	00	P	1	Pay Cont.				99,762.16	79	80
334	1034	201	00	N	1	"				429.46	79	79
334	1034	206	00	N	1	Int.				54.72	80	80
334	1034	235	00	N	9	Tr. City				6,060.00	79	79
334	1034	296	00	N	9	" St		115.83CR		104,440.72CR	79	81
334	1034	298	00	N	9	" Fed		115.83		98,380.72	79	81
334	1034	900	00	P	1	Const. Engr		11.48		11,736.42	79	81
334	1034	920	00	P	1	P.M.				50.80	79	79
334	1034	948	00	P	1	Const. Engr		18.69		18.69	81	81
334	1034	948	00	N	1	"		23.88		23.88	81	81
		TOT		P	1			30.17		111,568.07		
		TOT		N	1			23.88		508.06		
		** JOB TOTALS **					**	54.05 **		112,076.13 **		

PROB INTCHGOFFRMPSCHOLLSFRYRD CONT NO 8952 FA PROJ NOS M 234004 98 X1 234004 52 STATE

334	1035	201	00	P	1			17,313.60CR		224,976.17	79	81
334	1035	201	00	P	2			108,395.84		205,569.03	80	81
334	1035	201	00	N	1			500.00		500.00	81	81
334	1035	203	00	P	1			11,012.00		5,088.00CR	80	81
334	1035	203	00	P	2			5,512.00CR		5,512.00CR	81	81
334	1035	203	00	N	1			500.00		500.00	81	81

TOTAL TO DATE JOB COST SUMMARY APRIL 1981 PAGE 252

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX	FUNCTION		GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE YRS BEG	ACTIVE YRS END
	334	1035	260	05	P	1		453.63	453.63	81	81
	334	1035	260	05	N	1		2.20	2.20	81	81
	334	1035	270	01	P	1			1,068.68	79	80
	334	1035	270	02	P	1	60.00	1,450.97	2,808.65	80	81
	334	1035	270	02	N	1			143.03	80	80
	334	1035	270	03	P	1		189.15	189.15	80	80
	334	1035	290	06	N	1		3,862.00CR	3,862.00CR	81	81
	334	1035	296	00	N	9	1,150.38CR	98,439.57CR	417,001.87CR	79	81
	334	1035	298	00	N	9	1,150.38	98,439.57	417,001.87	79	81
	334	1035	900	00	P	1	57.58	1,802.73	12,156.41	79	81

SPRR XING N MAIN HILLSBORO CONT NO FA PROJ NOS RRS 028002 100

											STATE	
334	1031	205	01	P	1			2,788.38CR		5,733.18CR	80	81
334	1031	270	01	P	1			27,883.78		57,331.78	80	81
334	1031	296	00	N	9		82.65CR	23,478.02CR		47,383.19CR	79	81
334	1031	298	00	N	9		82.65	23,478.02		47,383.19	79	81
334	1031	900	00	P	1					13.82	80	81
334	1031	920	00	P	1		179.96	1,069.70		1,069.70	81	81
334	1031	940	03	P	1			35.28		35.28	81	81
334	1031	915	00	P	1					45.08	79	81
334	1031	920	00	P	1			6.26		6.26	81	81
334	1031	948	00	P	1							
		TOT		P	1		179.96	26,206.64		52,767.94		
		** JOB TOTALS **					179.96 **	26,206.64	**	52,767.94 **		

HILLFARMER RV-26TH AV FIRST GRV CONT NO 8948 1 FA PROJ NOS M 056001 100

											STATE	
334	1034	201	00	P	1	Pay Cont.				99,762.16	79	81
334	1034	201	00	N	1	"				429.46	79	81
334	1034	206	00	N	1	Int.				54.72	80	81
334	1034	225	00	N	9	Tr. City				6,060.00	79	81
334	1034	296	00	N	9	" St		115.83CR		104,441.72CR	79	81
334	1034	298	00	N	9	" Fed		115.83		98,380.72	79	81
334	1034	900	00	P	1	Const. Engr.		11.48		11,736.42	79	81
334	1034	920	00	P	1	P.M.				50.80	79	81
334	1034	948	00	P	1	Const. Engr		18.69		18.69	81	81
334	1034	948	00	N	1	" "		23.88		23.88	81	81
		TOT		P	1			30.17		111,568.07		
		TOT		N	1			23.88		508.06		
		** JOB TOTALS **					**	54.05	**	112,076.13 **		

PROG INTCHGOFFRMPSCHOLLSFRYRD CONT NO 8952 FA PROJ NOS M 23400N 48 X1 23400N 52

											STATE	
334	1035	201	00	P	1			17,313.60CR		224,976.17	79	81
334	1035	201	00	P	2			108,395.84		205,569.03	80	81
334	1035	201	00	N	1			500.00		500.00	81	81
334	1035	203	00	P	1			11,012.00		5,088.00CR	80	81
334	1035	203	00	P	2			5,512.00CR		5,512.00CR	81	81
334	1035	203	00	N	1			500.00		500.00	81	81

TOTAL TO DATE JOB COST SUMMARY

APRIL 1981 PAGE 252

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION		GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE BEG	YRS END
	334	1035	260	05	P	1		463.43			
	334	1035	260	05	N	1		2.20			
	334	1035	270	01	P	1					
	334	1035	270	02	P	1	66.00	1,450.97			
	334	1035	270	02	N	1					
	334	1035	270	03	P	1		199.15			
	334	1035	290	06	N	1					
	334	1035	296	00	N	9	1,150.38CR				
	334	1035	298	00	N	9	1,150.38	96,478.57			
	334	1035	900	00	P	1	57.50	1,802.73	12,156.41		

334	1031	270	01	P	1			2,788.38CR		9,733.19CR		80	81
334	1031	296	00	N	9			27,883.78		57,331.78		80	81
334	1031	298	00	N	9	82.65CR		23,478.02CR		47,383.19CR		79	81
334	1031	900	00	P	1	82.65		23,478.02		47,383.19		79	81
334	1031	900	03	P	1					13.02		80	81
334	1031	915	00	P	1	129.96		1,069.20		1,069.20		81	81
334	1031	920	00	P	1			35.28		35.28		81	81
334	1031	948	00	P	1					45.08		79	80
		TOT		P	1			6.26		6.26		81	81
		** JOB TOTALS **				179.96	**	26,206.64	**	52,767.96	**		

WILLAMINA RN-26TH AV FRST GRV CONT NO 8948 X FA PROJ NOS M 055001 100

334	1034	201	00	P	1	Pay Cont.				99,762.16	STATE	79	
334	1034	201	00	N	1	"				429.46		79	80
334	1034	206	00	N	1	Int.				54.72		80	80
334	1034	296	00	N	9	Tr. City				6,060.00		79	80
334	1034	296	00	N	9	" St							81
334	1034	298	00	N	9	" Fed.		115.83CR		104,940.72CR		79	81
334	1034	900	00	P	1	Const. Engr.		115.83		98,380.72		79	81
334	1034	920	00	P	1	P.M.		11.48		11,736.42		79	81
334	1034	948	00	P	1	Const. Engr				50.80		79	81
334	1034	948	00	N	1	" "		18.69		18.69		81	81
		TOT		P	1			23.88		23.88		81	81
		TOT		N	1			30.17		111,568.07			
		** JOB TOTALS **					**	23.88		508.06			
								54.05	**	112,076.13	**		

PROG INTCH&OFFRMPSCHOLLSFRYRD CONT NO 8952 FA PROJ NOS M 234004 48 X1 234004 52

334	1035	201	00	P	1			17,313.60CR		229,976.17	STATE	79	
334	1035	201	00	P	2			108,395.84		206,569.03		80	81
334	1035	201	03	N	1			500.00		500.00		81	81
334	1035	203	00	P	1			11,012.00		5,088.00CR		80	81
334	1035	203	00	P	2			5,512.00CR		5,512.00CR		81	81
334	1035	203	03	N	1			500.00		500.00		81	81

TOTAL TO DATE JOB COST SUMMARY

APRIL 1981 PAGE 252

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION		GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE		RATING BLDG	YRS END
	334	1035	260	05	P	1		467.43	467.43		81	81
	334	1035	260	05	N	1		2.20	2.20		81	81
	334	1035	270	01	P	1					79	80
	334	1035	270	02	P	1	60.00	1,450.97	2,[illegible]		79	80
	334	1035	270	02	M	1					79	80
	334	1035	270	03	P	1		189.15	189.15		80	80
	334	1035	290	06	N	1		3,847.00CR	3,847.00CR		80	80
	334	1035	296	00	N	9	1,150.35CR	98,433.57CR	417,[illegible]		79	81
	334	1035	298	00	N	9	1,150.35	98,433.57	417,071.87		79	81
	334	1035	900	00	P	1	57.58	1,802.73	12,156.41		79	81

TOTAL TO DATE JOB COST SUMMARY — APRIL 1981 — PAGE 821

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX	FUNCTION	GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	
HILLSMINA AV MAIN ST FRST GR CONT NO	& FA PROJ NOS M	555001 100					STATE
334	1909	296	00 N 9	Tr. St	275.31	6,310.20CR	
334	1909	298	00 N 9	" Fed.	275.31CR	6,310.20	
334	1909	901	00 P 1	Res. Engr.	12.77CR	1,202.53	
334	1909	903	00 P 1	Pay Loc. Cost	280.59CR	1,009.37	
334	1909	905	00 P 1	Fin Des	102.52CR	805.63	
334	1909	905	00 N 1	"	102.52	102.52	
334	1909	906	00 P 1	Br. Des	17.55CR		
334	1909	906	00 N 1	"	17.55	17.55	
334	1909	910	00 P 1	Soils & G	72.70CR	1,047.71	
334	1909	910	00 N 1	"	72.70	72.70	
334	1909	911	00 P 1	Signing		253.30	
334	1909	912	00 P 1	Lands	1.85CR		
334	1909	912	00 N 1	"	1.85	1.85	
334	1909	914	00 P 1	Ut Lias.		9.00	
334	1909	915	00 P 1	Audit		174.39	
334	1909	920	00 P 1	P.M.		161.52	
334	1909	921	00 P 1	Specs	5.92CR	578.55	
334	1909	922	00 P 1	Engr.-Aux Ser		34.10	
334	1909	923	00 P 1	Env.	1.35CR	81.06	
334	1909	923	00 N 1	"	1.35	1.35	
334	1909	924	00 P 1	DOT	570.08CR		
334	1909	924	00 N 1	"	570.08	570.08	
		TOT	P1		1,065.33CR	7,357.12	
		TOT	N1		766.05	766.05	
		** JOB TOTALS **		**	299.28CR**	8,123.17	**
MURRAY BLVD-ALICE LANE	CONT NO 0000	FA PROJ NOS M	088001 100 X1	088001			STATE
334	1912	295	00 N 9			9,375.00	
334	1912	296	00 N 9		8,865.82CR	49,898.19CR	228,178.19CR
334	1912	298	00 N 9		8,865.82	49,898.19	218,803.19
334	1912	901	00 P 1		176.47	48,563.26CR	27,828.06
334	1912	901	00 P 2			55,293.62	55,293.62
334	1912	901	00 N 1			243.46	2,330.83
334	1912	902	00 P 1				15,293.71
334	1912	902	00 N 1			174.83	384.21
334	1912	904	00 P 1			7,166.38CR	52,448.28
334	1912	904	00 P 2			7,166.38	7,166.38
334	1912	905	00 P 1		171.22	6,106.44	6,106.44
334	1912	907	00 P 1			168.63	1,301.33
334	1912	909	00 P 1		1,834.76	9,0[illegible]98	9,[illegible]6.26
334	1912	910	00 P 1			89[illegible]06	2,[illegible]97
334	1912	911	00 P 1		784.72	1,28[illegible]51	22,[illegible]54
334	1912	912	00 P 1		449.48	449.48	[illegible]48
334	1912	913	00 P 1		27.64	435.86	1,9[illegible]15
334	1912	913	00 N 1				[illegible]46
334	1912	914	00 P 1			602.88	88[illegible]23

8948

U.S. GOVERNMENT PRINTING OFFICE: 1974 — 732-628

cc: State (H S Coulter)

STATE COPY

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL ACCEPTANCE REPORT

7-3 8.

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	2	Washington	Oregon

DATE OF REPORT	REPORT MADE BY		PROJECT NO.
7-31-80	W. N. Bryant, Area Engineer		M-5055(1)
COMPLETION DATE	**ACCEPTANCE DATE BY CONTRACT AGENCY**	**TIME ELAPSED**	**CONTRACT TIME**
8-8-79	12-14-79	48 %	43 of 90 = 50%
APPROVED EXTENSIONS	**LOCATION**		
None	600 foot Section of Main Street in the City of Forest Grove, Oregon		

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

WILLAMINA AVE.-MAIN STREET
FAU 5055-WASHINGTON COUNTY
Grade and Pave

The following cost information reflects differences between the estimated cost reported in the final construction Inspection Report and this report:

Item	FIR	FAR
Bid Items	$ 98,906.48	$ 97,411.48
Appr. Changes	1,302.53	2,797.53
Engineering	9,350.00	7,892.95
	$109,559.41	$108,101.96

RECEIVED
STATE HWY ENGR
AUG 1 '80

8-1 cy

REFER TO
Keasey
FOR

Info	Invest	R/D	D/R	Sign	Act	File

*NOTE: Not applicable for direct federal projects.

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE	W. N. Bryant Area Engineer W. N. Bryant	SIGNATURE	Original Signed By W. N. Bryant Field Operations Engineer G. K. Hossner
TITLE	Area Engineer	TITLE	Field Operations Engineer
DATE	7/31/80	DATE	8/31/80

FORM FHWA-1469 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

8948

Item 7

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

STATE HIGHWAY ENGINEER

1-2-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Hap Taylor, Inc., No. 8927	Odell Lake Rock Production Klamath County	December 11, 1979
W. R. Grasle Co., No. 8746	SW Barbur Blvd. @ SW Miles; W. Burnside St. @ NW 23rd; SW 1st Ave. @ SW Arthur Multnomah County	December 11, 1979
Mocon Corp., No. 8620	NE Sandy Blvd. U'xing, Multnomah County	December 11, 1979
Hamilton Electric, No. 8680	Elm Ave.-E. Highland Ave. (Hermiston), Umatilla Co.	December 13, 1979
Hertz Electric, Inc. No. 8825	Martinazzi Ave. & Boones Ferry Rd. @ SW Nyberg Rd. (Tualatin), Washington Co.	December 14, 1979
Columbia Excavating, Inc., No. 8573	NE Glisan St.-SE Division St. (Sound Barriers & Bikeway), Multnomah Co.	December 14, 1979
C. G. Gredvig, Inc., No. 8948	Willamina Ave.-26th Ave. (Forest Grove), Washington County	December 14, 1979
Poe Asphalt Paving, Inc. No. 8961	Wades Point-Joseph Wallowa County	December 18, 1979
Gervais Construction Co. No. 8744	Church St.-Mill St. (Silverton) Marion County	December 19, 1979
Sims Electric, Inc. No. 8913	W. Stewart Parkway @ W. Harvard Ave. (Roseburg) Douglas County	December 19, 1979

Contractor and Contract No.	Section and County	Acceptance Date
Douglas S. Coats Construction, No. 8847	Willow Creek (Morgan Street) Bridge, Morrow County	December 27, 1979

January 2, 1980 /s/ H. S. Coulter

H. S. Coulter, State Highway Engineer

8948

December 19, 1979

Fidelity & Deposit Company of Maryland
500 N.E. Multnomah, Suite 1000
Portland, OR 97232

COM 5
Contract No. 8948

Gentlemen:

Contract No. 8948 awarded to C. G. Gredvig, Inc. for work on the Willamina Avenue-26th Avenue (Forest Grove) Section of FAU 5055 in Washington County was completed on August 3, 1979, and accepted by the State Highway Engineer on December 14, 1979.

Final payment in the amount of $4,827.38 will be released to the contractor after December 24, 1979. The total contract amount is $100,191.62, including $1,402.58 for work performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

C. W. Head
COMMISSION SERVICES

dms

cc: C. G. Gredvig, Inc.
4935 N.W. Kahneeta Ct.
Portland, OR 97229

Fidelity & Deposit Co. of Maryland
P. O. Box 1227
Baltimore, MD 20203

bc: C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Hacek
E. L. Hardt

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State
MONTHLY TRANSACTION NUMBER 12-72		Oregon
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County Washington
MODIFICATION NUMBER 4 2	11-7-79	Project Number M-5055(1)

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on July 20 , 19 79 , is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 113,351.00	$ 119,800.00
Federal funds	$ 99,691.00	$ 105,600.00
Other revisions		

This modification is made for the following reasons:

To include increase in construction bid item quantities.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 7th day of November , 19 79 .

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By _____

Asst. State Highway Engineer
(Title)

By For: H. S. Coulter

State Highway Engineer
(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: G. L. Green

Form FR-2A
(Rev. 10-75)

Previous editions are obsolete

Gen File

Oregon State Highway Division
Salem, OR October 31, 1979

Federal Aid Project
No. M-5055(1)

Willamina Ave.-26th Ave. (Forest Grove)
FAU 5055 (Main Street)
Washington County

Revised Project Agreement Estimate

Type Code PE			
Preliminary Engineering	All Required		$ 8,300.00
Type Code 6201			
Roadway (Sta. 0+00 to Sta. 6+34)			
Subtotal of Previous Estimate of July 13, 1979			93,317.50
Previous Estimate			
3/4"-0 Aggregate Base	400 Ton	9.50	3,800.00
Class "B" Asphalt Concrete	675 Ton	24.50	16,537.50
Concrete Driveways	140 Sq. Yd.	14.40	2,016.00
			$ 22,353.50
Revised Estimate			
3/4"-0 Aggregate Base	478 Ton	9.50	4,541.00
Class "B" Asphalt Concrete	765 Ton	24.50	18,742.50
Concrete Driveways	203 Sq. Yd.	14.40	2,923.20
PA #1 (3" PVC Pipe)	226 Lin. Ft.	6.50	1,469.00
			$ 27,675.70
		Increase	5,322.20
		Subtotal	98,639.70
		Engineering	12,860.30
		Total	$ 111,500.00

Length of Roadway. . . . . 0.120 Mile
Cost of Roadway Per Mile. . . $929,166.66

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds	City Funds
Preliminary Engineering	$ 8,300.00	$ 7,316.00	$ 492.00	$ 492.00
Roadway	111,500.00	98,284.00	6,608.00	6,608.00
Total	$119,800.00	$105,600.00	$7,100.00	$7,100.00

Group 1 - 100%
Contract No. 8948
Prefix 334-1909
Prefix 334-1034

8948 STATE COPY

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	Form Approved; O M B No. 04-R2089
MONTHLY TRANSACTION NUMBER 8-158		State Oregon
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County Washington
MODIFICATION NUMBER 1	7-20-79	Project Number N-5055(1)

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on September 27, 19 78, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 2,000.00	$ 113,351.00
Federal funds	$ 1,560.00	$ 99,691.00
Other revisions		

This modification is made for the following reasons: To include contract work.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 20th day of July, 1979.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By E S Coulter

Asst. State Highway Engineer
(Title)

By For: H. S. Coulter

State Highway Engineer
(Title)

By _____

_____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: G. L. Green

Form PR 2A (Rev. 10-75) Previous editions are obsolete GPO 927 494

Glen file

Oregon State Highway Division
Salem, Oregon, July 13, 1979

Federal Aid Project
No. M-5055(1)

Willamina Ave.-26th Ave. (Forest Grove)
FAU 5055 (Main Street)
Washington County

Revised Project Agreement Estimate

Type Code P.E.

Preliminary Engineering	All Required		$ 7,436.00

Type Code 6201
Roadway (Sta. 0+00 to Sta. 6+34)

Mobilization	All Required		4,500.00
Temporary Protection and Direction of Traffic	All Required		2,000.00
Temporary Signs	150 Sq.Ft.	$ 7.00	1,050.00
Temporary Barricades	5 Each	200.00	1,000.00
Flagmen	240 Hour	17.00	4,080.00
Clearing and Grubbing	All Required		2,300.00
Removal of Structures and Obstructions	All Required		2,500.00
General Excavation	1,890 Cu.Yd.	5.00	9,450.00
Trench Excavation	160 Cu.Yd.	8.00	1,280.00
Coarse Aggregate Base	1,730 Ton	9.30	16,089.00
Aggregate Leveling Course	400 Ton	9.50	3,800.00
Class "B" Asphalt Concrete	675 Ton	24.50	16,537.50
12-inch Sewer Pipe	629 Lin.Ft.	10.00	6,290.00
Portland Cement Concrete in Sewers	20 Cu.Yd.	65.00	1,300.00
Concrete Manholes	3 Each	1,250.00	3,750.00
Concrete Inlets, Type CG-1	5 Each	425.00	2,125.00
Concrete Walks	575 Sq.Yd.	12.60	7,245.00
Concrete Driveways	140 Sq.Yd.	14.40	2,016.00
Concrete Curbs	1,280 Lin.Ft.	3.50	4,480.00
Adjusting Manholes	3 Each	200.00	600.00
Adjusting Boxes	5 Each	75.00	375.00
			$ 92,767.50

Anticipated Items

Permanent Pavement Striping	All Required	$ 550.00
	Subtotal	$ 93,317.50
	Engineering	12,597.50
	Total	$105,915.00

Oregon State Highway Division
Salem, Oregon, July 13, 1979

Federal Aid Project
No. M-5055(1)

Length of Roadway . . . . . 0.120 Mile

Cost of Roadway Per Mile. $862,625.00

SUMMARY OF FUNDS (88.15%)

Description	Total Cost	Federal Funds	State Funds	City Funds
P.E.	$ 7,436.00	$ 6,380.00	$ 528.00	$ 528.00
Roadway	105,915.00	93,311.00	6,302.00	6,302.00
Total	$113,351.00	$99,691.00	$6,830.00	$6,830.00

Group 1 100%
Contract No. 8948
Prefix No. 334-1909
Prefix No. 334-1034

Oregon State Highway Division
Salem, Oregon, July 13, 1979

Federal Aid Project
No. M-5055(1)

Willamina Ave.-26th Ave. (Forest Grove)
Nonparticipating - State Work

Setting Mailbox Posts	7 Each	$ 60.00	$ 420.00
Furnish Mailbox Posts	All Required		120.00

STATE COPY

OMB No. 04-R2089

TO BE COMPLETED BY FHWA MONTHLY TRANSACTION NO. 9-285	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION **FEDERAL-AID PROJECT AGREEMENT** 7-27-78	State Oregon County Washington Project No. M-5055(1)

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

City Street, Forest Grove

PROJECT CLASSIFICATION OR PHASE OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING AND RESEARCH (HP & R)		
PRELIMINARY ENGINEERING	7-6-78	0.11
RIGHTS-OF-WAY		
CONSTRUCTION		
OTHER *(Specify)*		

FUNDS Pro Rata 78.19%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 2,000.00	$ 1,560.00

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By E. H. Coulter

Technical Services Engineer
(Title)

For: H. S. Coulter

State Highway Engineer
(Title)

By

(Title)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By
(Division Administrator)

For: G. L. Green

Date executed by Division Administrator SEP 27 1978

Form PR-2 (Rev. 10-75) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PREFARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation..

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects. No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtednesss of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 307 (c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Administrator concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

File

Oregon State Highway Division
Salem, Oregon September 15, 1978

Federal Aid Project
No. M-5055(1)

Willamina Ave.-Main St. (Forest Grove) Section
in Washington County

Project Agreement Estimate

Type Code P.E.
Preliminary Engineering

Preliminary Engineering	All Required	$2,000.00
	TOTAL	$2,000.00

Length of Project - - - - - - - - - - - - - - - 0.11 mile

Summary of Funds

Description	Total Cost	Federal Funds	State Funds	City Funds
Preliminary Engineering	$ 2,000.00	$ 1,560.00	$ 220.00	$ 220.00
Retain in Program (Rd. Wk.)	44,000.00	34,320.00	4,840.00	4,840.00
TOTAL	$46,000.00	$35,880.00	$5,060.00	$5,060.00

Group 1 - 100%
Prefix - 334-1909

8948

Verstoeg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
NOV 6 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up
Action

11-5-79

NARRATIVE REPORT

Willamina Ave.-26th Ave. (Forest Grove)
FAU 5055 (Main St.) Washington County
Contract No. 8948 F.A. M-5055(1)

This was a Federal-Aid Project, awarded to C. G. Gredvig, Inc., on June 15, 1979, for the sum of $93,187.50. The contractor started work on June 20, 1979, and completed the project August 8, 1979. The specified completion on this project was 90 calendar days; fourty-three calendar days were used.

This project consisted of rebuilding a section of Main Street, a city street within the City of Forest Grove. The overall length of the project is 0.12 miles, with the work to be done under this contract consisting of grading, paving, drainage, concrete curbs and sidewalks.

Once the contract was awarded, the contractor went right to work and completed the project without delay and well ahead of schedule.

There were no major problems encountered during the construction. One change order was necessary to do a minor amount of corrective work on two driveways and a small portion of sidewalk. This work was done at the request of John D. Burdett (Director of Public Works), City of Forest Grove.

The provision for closing the street under construction to thru traffic and providing a detour route is very beneficial during construction for a project of this type.

The overall project was completed with an overrun of two percent. It is not anticipated, at this time, that the contractor will be submitting any claims against the project.

James Cockell

Keesey
Jackmond
Hopkins
Williams
Johnson
Glenn

RECEIVED
NOV 5 1979
CONSTRUCTION BRANCH

Richards
Berg
Inloes
Widmer
Gebauer
Church

REFERRED TO
Beard
Stoudenmeyer
Cole
Sample
Eriksen
Watson
Hager
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Leu
Return
Discuss
File Copy
Due
BY FINAL DESIGN ENGINEER

Dut

prepare ltr of acknowledgement.

xc: Rd. Design
Matl's

89418

Department of Transportation
STATE HIGHWAY DIVISION

ROBERT W. STRAUB
GOVERNOR

CON 5

RECEIVED
STATE HWY ENGR
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REFER TO
FOR
Info | Inves | R/D | D/R | Spec | Act | File

DATE: October 26, 1979

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: C. T. Keasey
Ass't. State Highway Engineer

SUBJECT: Request Contract Acceptance
Federal-aid Project No. M-5055(1)

Contract 8948, Work Completed August 8, 1979

Project Willamina Ave.-26th Ave. (Forest Grove)

Highway FAU 5055 (Main St.)

County Washington

We request that your office return a signed copy of this letter indicating acceptance or list conditions which would prevent your final acceptance of the contract work.

Acceptance Date 10-31-79

JB

G. K. Hansen
G. L. Green
Division Administrator

RDC:mk

cc: H. S. Coulter
C. T. Keasey
E. L. Hardt
R. D. Church

Keasey | Richards
Jackmond | Berg
Hopkins | Inloes
Williams | Widmer
Johnson | Gebauer
Glenn | Church
RECEIVED
NOV 8 1979
CONSTRUCTION
BRANCH

1943

FORM 81-734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

	SECTION: Willamina Ave. - 26th Ave.	WEEK ENDING: 10/20/79
		SECTION PREFIX: 334-1034
	HIGHWAY: FAU 5055 (Main St.)	COUNTY: Washington
NAME OF JOB: Willamina Ave.-26th Ave.(Forest Grove)	KIND OF WORK: Grading & Paving	
CONTRACTOR: C. G. Gredvig, Inc.	CONTRACT NUMBER: 8948	FEDERAL AID PROJECT NUMBER: M-5055(1)
DATE OF CONTRACT: 6/15/79	DATE WORK STARTED: 6/29/79	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 90	CALENDAR DAYS USED 43
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED 48
PROJECT AUTHORIZATION: $ 107,411.84		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST 100
EXCLUSIVE OF ENGINEERING: $ 98,081.09	ENGINEERING AUTHORIZATION $ 9,385.75	
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 100,316.88	ENGINEERING COST TO DATE $ 8,070.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION 94
ESTIMATED PERCENT: OVERRUN UNDERRUN 2 %	PERCENT OF AUTHORIZATION 86 %	DATE PROJECT WAS COMPLETED: 8/18/79

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		"B" Mix 100
		GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM		PAVING
MILES IN PROJECT		0.12	0.12				0.12
MILES PARTIALLY COMPLETED							
MILES COMPLETED		0.12	0.12				0.12
TOTAL ESTIMATED QUANTITIES (CONTRACT)		1,890 CY	2,130 ton				675 ton
TOTAL QUANTITIES CORRECTED TO DATE		1,796	2,182				765
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE		1,796	2,182				765
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT							

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 14	Clear	0		
MONDAY 15	Cloudy	0		
TUESDAY 16	Cloudy	0		
WEDNESDAY 17	Cloudy	0		
THURSDAY 18	Rain	0		
FRIDAY 19	Showers	0		
SATURDAY 20	Showers	0		

RECEIVED
OCT 23 1979
CONSTRUCTION BRANCH

Keasey, Jackmond, Hopkins, Williams, Johnson, Glass, Richards, Berg, Inloes, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

This project has been completed. The semi-final has been submitted, and this will be the last weekly report for this project.-

CONSTRUCTION

RECEIVED
OCT 23 1979
CONSTRUCTION
BRANCH

SIGNED J. W. Edd LOCATION

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-F216

9-47

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

8-13-79

FEDERAL AID PROJECT NO. M-5055(1)

STATE PROJECT NO. See below

COUNTY NAME Washington

PROGRAM NO.

ITEM NO. M-47

PROGRAM STAGE (Check) 1. 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

TO:
Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

8-22 orig

RECEIVED
STATE HWY ENGR
AUG 22 '79
REFER TO Mcelvaney
FOR
Info | Invest | R/C | D/R | Sign | Act | File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	8-13-79	FAU 5055	City Street

GENERAL LOCATION:
Willamina Avenue - Main Street (Forest Grove)

GENERAL DESCRIPTION OF WORK:
Program Change

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
- ☒ OTHER (Specify) Program Change See Below
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of July 30, 1979, I approve the revised preliminary engineering costs to a TEC of $9,800 with Federal participation limited to $8,635.

It should be noted that preliminary engineering costs on or after May 2, 1979, date of PS&E approval, are not eligible PE costs.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
8-13-79		for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1973—521-616

8948

May 29, 1979

City of Forest Grove
P. O. Box 326
Forest Grove, OR 97116

Attn: Daniel F. Duris
City Manager

Gentlemen:

On May 24, 1979 a satisfactory bid was received from Gredvig, C. G., 4935 N.W. Kahneeta Ct., Portland, OR 97229 for construction on the Willamina Ave.-26th Ave. Section, FAU 5055. The advance deposit based on the anticipated construction cost of their bid is as follows:

Bid Items	$ 93,187.50
Permanent Pavement Striping	550.00
Furnish Mail Box Posts	120.00
4½% Contingencies	4,223.59
(10%) Engineering	9,385.75
ESTIMATED TOTAL COST	$107,466.84

City's Advance Deposit:
6% of $107,466.84 = $6,448.01 or say $ 6,400.00

This project will be awarded upon receipt of your advance deposit, which should be in this office no later than June 15, 1979.

Please make your check for $6,400.00 payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

ORIGINAL SIGNED BY
D. E. SWAN

D. E. Swan
Operations Programming Engineer

FH:dmc

bc w/AD#640: Jon Rose, Federal Aid Specialist
Vern Skoog-Please return completed AD#640 when check is received.

8941S

Rev. 1

Section Willamina Ave. - 26th Ave. (Forest Grove) Programming Estimate $ 124,000

Highway FAU 5055 (Main St.) Project Length 0.12 mi.

County Washington 5-24-79 Completion Time 90 cal. days

Kind of Work Grading and Paving

Prefix 334-1909 FA Project No. M-5055(1)

ESTIMATED CONSTRUCTION AUTHORIZATION

Estimated Contract Amount		$ 108,318 00
Anticipated Additional Items:		
Royalty Payment		
Building Permit Fees		
Slide Correction		
Railroad Protective Costs		
Other Railroad Costs		
Permanent Signing		
✓ Permanent Pavement Striping	$ 550	
Temporary Pavement Striping		
Remove Pavement Striping (Exist. & Temp.)		
Temporary Erosion Control		
State Furnished		
Install Water Meter		$ 670 00
Furnish Water		
Laboratory Fees		
On the Job Trainees		
State Responsibility for Damages		
Signal Controller Testing		
Bikeway Signs		
Furnish Mail Box Posts	$ 120	
Adjust Utilities		
Misc. Permit Fees		
		$ 108,988 00
Contingencies (4-1/2%)		4,904 46
Engineering (9%)		9,808 92
~~SUBTOTAL~~		$ 783 10
Credit for		
Estimated Net Authorization, Construction		$ 123,701 38

May 24

APPROVED

Road Design Engineer

Rec'd 4-25-79

Pe 7,000

130,700

Fed # 115,000

OK

OREGON STATE HIGHWAY DIVISION — ~~SUMMARY OF BID SCHEDULE~~--COST ESTIMATE

Sheet 1 of 2

Date April 18, '79

Section Willamina Ave. - 26th Ave. (Forest Grove) County Washington

Kind Of Work Grading and Paving Length 0.12 mi. Name Bricher

Item	Code	Unit	Quant.	Unit Cost	Total
Mobilization (8%)		All	All	-	8,000-
Temporary Protection and Direction of Traffic		All	All	-	240-
Temporary Signs		Sq. Ft.	138	6-	828-
Temporary Barricades		Each	5	100-	500-
Flagmen		Hour	240 ~~160~~	19-	4,560-
ROADWORK					
Clearing and Grubbing		All	All	-	1,000-
Removal of Structures and Obstructions		All	All	-	1,000-
General Excavation		Cu. Yd.	1,890	5-	9,450-
Trench Excavation		Cu. Yd.	160	12-	1,920-
Coarse Aggregate Base		Ton	1,730	7-	12,110-
Aggregate Leveling Course		Ton	400	7 50	3,000-
Class "B" Asphalt Concrete		Ton	675	35-	23,625-
12-inch Sewer Pipe		Lin. Ft.	629	15-	9,435-
Portland Cement Concrete in Sewers		Cu. Yd.	20	200-	4,000-

GON STATE HIGHWAY DIVISION — Sheet 2 of 2

~~SUMMARY—BID SCHEDULE~~—COST ESTIMATE — Date April 20, '79

ection Willamina Ave. - 26th Ave. (Forest Grove) County Washington

ind Of Work Grading and Paving Length 0.12 mi. Name Bricher

Item	Code	Unit	Quant.	Unit Cost	Total
Concrete Manholes		Each	3	1,500-	4,500-
Concrete Inlets, Type CG-1		Each	5	575-	2,875-
Concrete Walks		Sq. Yd.	575	17-	9,775-
Concrete Driveways		Sq. Yd.	140	23-	3,220-
Concrete Curbs		Lin. Ft.	1,280	4.75	6,080-
Adjusting Manholes		Each	3	200-	600-
Adjusting Boxes		Each	5	250-	1,250-
Setting Mailbox Posts		Each	7	50-	350-

89-48

P

Salem, Oregon
May 11, 1979

H. S. Coulter
State Highway Engineer

F I L E

Footpaths and Bicycle Trails
May 24, 1979 Bid Letting

Willamette Ave. - 26th Ave.

This is an informational report to document the Highway Division's action taken with regard to establishing footpaths and bicycle trails as set forth in ORS 366.514. Bids will be opened May 24 on the following projects:

1. Broadway @ 16th Street (North Bend)
   Cape Arago Highway, Coos County
   Traffic Signals

   Footpaths or bicycle trails are not incorporated in this project as no new highway construction, reconstruction or relocation is involved.

2. Esplanade Street-Shasta Way
   Klamath Falls-Malin Highway, Klamath County
   Traffic Signals

   Same as No. 1.

3. N.E. Halsey Street at N.E. 223rd Avenue
   FAP No. IX-9867-2, Multnomah County
   Traffic Signals

   Same as No. 1.

4. Beaver Creek Bridge
   Powers Highway, Coos County
   Structure
   0 to 6-foot shoulders on approaches; 6-foot shoulders on structure

   Footpaths and bicycle trails will not be established under this project as per ORS Chapter 366, Section 2, subsection 2(c), which states, "footpaths and trails are not required to be established . . . where sparsity of population, other available ways or other factors indicate an absence of any need for such paths and trails."

5. Ochoco Highway-Ochoco Ranger Station
   Ochoco Ranger Station Road, Crook County
   Grading and Oiling
   28-foot roadway including 3-foot gravel shoulders

   Same as No. 4.

6. N. Umpqua River (Winchester) Bridge
Pacific Highway, Douglas County
Structures
Redecking structure

Same as No. 1.

7. Grants Pass Pavement Marking
City Streets, Josephine County
Pavement Marking

Same as No. 1.

8. Jantzen Beach Information Center
Pacific Highway, Multnomah County
Earthwork, Paving and Building
Sidewalks and ramps to be constructed for pedestrian and bicycle use

9. S.E. Morrison Bridge Ramp
Pacific Highway East (Grand Ave.), Multnomah County
Grading, Paving and Signals
Existing 12-foot sidewalk on east side of Grand Avenue to remain in place

10. Deschutes River (Sherars) Bridge
Sherars Bridge Highway, Wasco County
Structure
20-foot roadway with 4-foot shoulders on structure and approaches

Same as No. 4.

11. Willamina Avenue-26th Avenue (Forest Grove)
Main Street (Washington County)
Grading and Paving
40-foot street, curb-to-curb, with 5-foot sidewalks to be constructed

12. S. Unit Astoria-Camp Rilea
Oregon Coast Highway, Clatsop County
Grading and Paving
Shoulders will be striped and signed as a bikeway

13. Bend S.C.L.-Murphy Road
The Dalles/California Highway, Deschutes County
Grading and Paving
Shoulders will be striped and signed as a bikeway

14. N.E. Umatilla Street and N.E. 4th Avenue (Sherlin)
City Streets, Douglas County
Grading and Paving
5-foot sidewalks with pedestrian ramps to be constructed

15. Progress Interchange Off Ramp to
Scholls Ferry Road, Washington County
Grading, Paving and Signals

Same as No. 4.

16. Shaniko-The Dalles/California Highway
Sherman Highway, Wasco County
Oiling
32 to 40-foot roadway with 4-foot shoulders

Same as No. 4.

RPS:ge

cc: F. B. Klaboe
E. S. Hunter
D. G. Talbot
L. E. George
F. E. Terpin
George Bell
Don Harwell

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

8948

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: -5055(1)

STATE PROJECT NO.: See below

FROM: G. L. Green, Division Administrator
FHWA-Oregon Division, Salem, Oregon

PROGRAM NO.:

ITEM NO.: M-47

COUNTY NAME: Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer ODOT
State of Oregon
Salem, Oregon

RECEIVED
5/16/79
Orig to
Moehring

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	5-2-79	FAU 5055	City Street

GENERAL LOCATION:

Willamina Ave. - Main St. (Forest Grove) Section

GENERAL DESCRIPTION OF WORK:

Grade and pave

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☒ OTHER (Specify) Permanent Pavement Striping (SF) $550

☐ ACQUISITION OF RIGHT-OF-WAY

CONSTRUCTION - ADVERTISE FOR RECEIPT
☒ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

After concurrence in award you are authorized to proceed with those items listed above as shown in your Estimate.

Mr. Swan's 4-30-79 request and certifying statements are accepted.

PS&E documents for the subject project have been reviewed and are approved at a total estimated cost of $123,239 - Federal Funds $108,573.

A signed Title Sheet is returned herewith.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-2-79	G. K. Hoesner	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—421-988

8948

Forest Grove

FORM 81-734-5030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

April 26, 1979

FILE:

FROM: Rod Henry, Assistant
Right of Way Manager

SUBJECT: CORRECTED
Right of Way Certification
F. A. Projects
Bid Opening May 24, 1979

TO: D. H. Moehring
Assistant State Highway Engineer

Federal-aid Project No. M-5055(1) Highway No. 734 City

Federal-aid Project Name Willamina Ave. - Lincoln Park (Forest Grove)

I certify that to the best of my knowledge the following statements, as checked, are correct with regard to the right of way and relocation for this project:

[ ] No additional right of way was acquired. Construction can be accomplished within the existing right of way.

[x] Right of way was acquired in accordance with current FHWA directives covering acquisition of real property and with the relocation provisions of FHPM 7-5. The State has legal and physical possession or has a right to occupy and use all right of way. Occupants have vacated all residential, commercial and farm buildings.

* * * * *

[x] There are no individuals or families to be displaced from residential improvements.

[ ] All individuals and families have been relocated to decent, safe, and sanitary housing, or the State has made available to relocatees adequate replacement housing in accordance with the provisions of current FHWA directives.

Rod Henry

RJH:jk

cc: J. H. Versteeg
Duane Ridings
F. C. Lowe

8948

FORM 81.734.3030

FILE:

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

April 25, 1979

FROM: Rod Henry, Assistant
Right of Way Manager

SUBJECT: Right of Way Certification
F. A. Projects
Bid Opening May 24, 1979

TO: D. H. Moehring
Assistant State Highway Engineer

Federal-aid Project No. M-5055(1) Highway No. 734

Federal-aid Project Name Willamina Ave. - Lincoln Park (Forest Grove)

I certify that to the best of my knowledge the following statements, as checked, are correct with regard to the right of way and relocation for this project:

[XX] No additional right of way was acquired. Construction can be accomplished within the existing right of way.

[ ] Right of way was acquired in accordance with current FHWA directives covering acquisition of real property and with the relocation provisions of FHPM 7-5. The State has legal and physical possession or has a right to occupy and use all right of way. Occupants have vacated all residential, commercial and farm buildings.

* * * * *

[ ] There are no individuals or families to be displaced from residential improvements.

[ ] All individuals and families have been relocated to decent, safe, and sanitary housing, or the State has made available to relocatees adequate replacement housing in accordance with the provisions of current FHWA directives.

REFERRED TO
Board ___ Goodrich ___
Fritz ___ Sample ___
Sullivan ___ Watson ___
Turpin ___ Trout ___
Nelson Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

RJH:jk

cc: J. H. Versteeg
Duane Ridings
F. C. Lowe

Versteeg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
APR 25 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up / /
Action

8948

OREGON STATE HIGHWAY DIVISION
117 DOT Building
Salem, Oregon 97310

4-23-79

734

Attention: Right-of-Way Section

Subject: Federal Aid Project No. M 5055(1)
Project Name Willamina Ave.-Lincoln Park Ent.

Regarding the above referred to federal aid project, we hereby certify that to the best of our knowledge and belief:

A. Existing Right-of-Way

☐ 1. All construction can be accomplished completely within the existing right-of-way. This existing right-of-way was acquired prior to January 2, 1971.

B. New Right-of-Way

☒ 1. This project required additional right-of-way purchased after January 2, 1971. Right-of-way, easements, or rights-of-entry required for this project have been secured in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, and all incidental charges related to the transfer of property has been or will be paid by the city in accordance with said Act.

☒ a. There has been no displacement of persons from residences, farms or businesses.

OR

☐ b. There has been displacement of persons from either residences, farms or businesses and in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, displaced persons, businesses, or farm operations have been provided relocation payments, if eligible, and relocation assistance. Displaced individuals or families have been relocated to decent, safe and sanitary housing or have been offered decent, safe, sanitary and fair housing immediately available on the open market.

C. Utilities

☒ 1. The occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to federal aid project have been authorized by permit, franchise, or other approved procedure.

Signed at Forest Grove, Oregon, this 23rd day of April, 1979

CC: DE Swan
CT Keasey
R. Trygstad.

City of Forest Grove

Certified By:

Regional Right-of-Way Supervisor
Date 4-24-79

Mayor

City Recorder

Instructions: Complete A or B and C.
R/W File No. _____
Rev. 1/76

Section Willamina Ave.- 26th Ave. (Forest Grove) Programming Estimate $ 124,000 Jan.

Highway FAU 5055 (Main St.) Project Length 0.12 mi.

County Washington 4-18-79 Completion Time 90 cal. days

Kind of Work Grading and Paving

Prefix 334-1909 FA Project No. M-5055(1)

ESTIMATED CONSTRUCTION AUTHORIZATION

Estimated Contract Amount		$ 108,390.00 ~~108,518.00~~
Anticipated Additional Items:		
Royalty Payment		
Building Permit Fees		
Slide Correction		
Railroad Protective Costs		
Other Railroad Costs		
Permanent Signing		
✓ Permanent Pavement Striping	$550	
Temporary Pavement Striping		
Remove Pavement Striping (Exist. & Temp.)		
Temporary Erosion Control		
State Furnished		
Install Water Meter		$ 670.00
Furnish Water		
Laboratory Fees		
On the Job Trainees		
State Responsibility for Damages		
Signal Controller Testing		
Bikeway Signs		
Furnish Mail Box Posts	$120	
Adjust Utilities		
Misc. Permit Fees		
		109,060.00
		$ ~~108,988.00~~
Contingencies (4-1/2%)		4,907.70 ~~4,904.46~~
Engineering (9%)		9,815.40 ~~9,800.92~~
~~SUBTOTAL~~		$
Credit for		
Estimated Net Authorization, Construction		$ ~~123,707.10~~ 123,783.10

APPROVED

J W Weston
Road Design Engineer

Rec'd 5-23-79

May 24

(11)

OREGON STATE HIGHWAY DIVISION — Sheet 1 of 2

~~SUM~~ ~~BID SCHEDULE~~ --COST ESTIMATE — Date April 18, '79

Section Willamina Ave. - 26th Ave. (Forest Grove) — County Washington

Kind Of Work Grading and Paving — Length 0.12 mi. — Name Bricher

Item	Code	Unit	Quant.	Unit Cost	Total
Mobilization (8%)		All	All	-	8,000-
Temporary Protection and Direction of Traffic		All	All	-	240-
Temporary Signs		Sq. Ft.	150 ~~138~~	6-	900- ~~828-~~
Temporary Barricades		Each	5	100-	500-
Flagmen		Hour	240 ~~160~~	19-	4,560-
ROADWORK					
Clearing and Grubbing		All	All	-	1,000-
Removal of Structures and Obstructions		All	All	-	1,000-
General Excavation		Cu. Yd.	1,890	5-	9,450-
Trench Excavation		Cu. Yd.	160	12-	1,920-
~~1½"-0~~ ~~Coarse~~ Aggregate Base		Ton	1,730	7-	12,110-
~~¾"-0 Aggregate Leveling Course~~		Ton	400	7 50	3,000-
Class "B" Asphalt Concrete		Ton	675	35-	23,625-
12-inch Sewer Pipe		Lin. Ft.	629	15-	9,435-
Portland Cement Concrete in Sewers		Cu. Yd.	20	200-	4,000-

OREGON STATE HIGHWAY DIVISION — Sheet 2 of 2

~~SUMMARY BID SCHEDULE~~ — COST ESTIMATE — Date April 20, '79

ection Willamina Ave. - 26th Ave. (Forest Grove) County Washington

ind Of Work Grading and Paving Length 0.12 mi. Name Bricher

Item	Code	Unit	Quant.	Unit Cost	Total
Concrete Manholes		Each	3	1,500-	4,500-
Concrete Inlets, Type CG-1		Each	5	575-	2,875-
Concrete Walks		Sq. Yd.	575	17-	9,775-
Concrete Driveways		Sq. Yd.	140	23-	3,220-
Concrete Curbs		Lin. Ft.	1,280	4 75	6,080-
Adjusting Manholes		Each	3	200-	600-
Adjusting Boxes		Each	5	250-	1,250-
Setting Mailbox Posts		Each	7	50-	350-

8948

Forest Grove city

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

April 16, 1979

FILE:

FROM: Donald E. Shaffer
Bicycle Route Engineer

TO: Duane Christensen
Final Design Engineer

SUBJECT: Willamina Avenue-26th Avenue
([redacted] Section
FAU 5055 (Main Street)
Washington County

I can't tell much about this job from the transmittal letter. Apparently it is a city street with curbs and sidewalks. Curb cuts at the corners would be mandatory.

DES:ge

REFERRED TO 2nd
Beard ___ Stoudenmayer ___
Cole ___ Sample ___
Erikson ___ Watson ___
Hager ___ Dixon ___ Lou ___
Tetzlaff ___ Discuss ___ Do ___ File Copy ___ Dup ___
FINAL DESIGN ENGINEER

Versteeg ___
Anderson ___
Christensen ___
Olson ___
Sullivan ___
Terpin ___
Trout ___
Wakerlig ___

RECEIVED
APR 18 1979
ROAD DESIGN SECTION

Do Not File ___
Return To ___
Bring Up ___ / ___
Action ___

8948

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

February 13, 1979

Portland

FILE: 334-1909

FROM: R. T. Ewem
Field Location Engineer

TO: Frank E. Terpin
Location Engineer

SUBJECT: Willamina Ave.-26th Ave.
(Forest Grove) Sec.
FAU 5055 (Main Street)
Washington County

Herewith are the plans for the above mentioned project.

In discussing the proposed construction with the City Engineers several items bear further explanation:

1. State to write specificationsasincluding the items mentioned in their letter of February 13, 1979.
2. Traffic can be detoured around the construction area as necessary using the Camino Dr.-26th Ave. route.

Previous review of the plans by Metro were made on January 26th and revisions by the city completed this date.

The following items are being submitted:
1 Roll Plans, Mylar, 4 Sheets
1 Sheet Small Scale Sketch Map showing Detour.
Copy of City of Forest Grove and Survey Sketch Map.

Specific design questions can be addressed to Mr. Al Steinger or Matt Reynolds, City of Forest Grove, P. O. Box 326, Phone 357-7171.

cc: Al Steinger

RTE/dw

RECEIVED
FEB 21 1979
LOCATION
SECTION

To Zehner
2-22-79

Plans Signed by
John Burdett.
2

Rec'd. 2-22-79
2

OK
To Wakeling 2-22-79
2 #

City of Forest Grove

1924 COUNCIL STREET
P.O. Box 326
FOREST GROVE, OREGON 97116

February 13, 1979

Earl C. Purdy, Resident Locating Engineer
Oregon State Highway Division
Room 210, 6415 S.W. Canyon Ct.
Portland, Oregon 97221

RE: Narrative Report Willamina Avenue - 26th Avenue (Main Street, Forest Grove) FAU 5055 Prefix 3[illegible]4-1909.

Dear Mr. Purdy:

In regard to the above project please note the following items:

1. Enclosed for your reference is a survey sketch which establishes the centerline of Main Street for this project. The north-western most survey monument indicated on the survey sketch is acknowledged to be the intersection point for the centerlines of Main Street and Willamina Avenue. Centerline and Station 0+00 of Main Street at the southern end of the project was established by pulling 33.00' east of the property corner (½" I.P.) common to Tax Lots 3200 and 3101, Washington County Tax Map 1N 3 31BC, that property corner also being located on the west right of way line of Main Street centerline station 0+00 falls on the lid of an existing sanitary manhole, whereas a P.K. nail was set in the pavement at centerline station 0+00.42.

2. Monument boxes located at the Main Street and Willamina Avenue intersection shall be reestablished and adjusted to finish grade during street construction. The monument referencing and reestablishment shall be the responsibility of the City's Engineering Department.

3. A 6" curb exposure shall be required in lieu of OSHD's 7" exposure in order to match existing curbs and grades.

4. N.W. Natural Gas is now in the process of locating and determining the depth of the gas mains. We have been informed by N.W. Natural Gas that part of the gas main within Main Street shall need to be relocted prior to street construction. N.W. Natural Gas will need a tentative construction schedule to schedule the relocation.

5. The existing power pole located in the Main Street and Willamina Avenue intersection, see item #25 on construction plans, shall be moved by the Forest Grove Light and Power Department prior to street construction.

If you have any questions or comments or need additional information, please contact this office.

Sincerely,

G. Matt Reynolds
City of Forest Grove

GMR:bjh

ITEM	UNIT	QUANTITY	ALLOWANCE	NET QUANTITY	UNIT PRICE	COST
MOBILIZATION 8%						7800
PROTECTION & DIRECTION						
OF TRAFFIC 3%						2920
CLEARING & GRUBBING				ALL		1000
EXCAVATION (INCLUDES STABILIZATION)	C.Y.			1864	2.70	5,032.80
BASE AGGREGATE (1½"-0")	C.Y.			1,190	9.50	11,305
WATER	1000GAL			1M·GAL	25.00	25
ADJUST MANHOLE	EACH			3	200.00	600
CLASS 4 BACKFILL (1½"-0")	C.Y.			28	15.25	427.50
CLASS A BEDDING	C.Y.			20	25.00	500
"-" FOUNDATION STABILIZATION	C.Y.			20	15.50	310
CLASS 2 CONCRETE PIPE	L.F.			633	8.50	5,380.50
1/16 BEND	EACH			2	25.00	50
CONST. MANHOLE (0'-6')	EACH			3	1500.00	4500
CATCH BASIN TYPE G-1 SPECIAL GRATE	EACH			5	575.00	2875
CONCRETE CURB TYPE 'C'	L.F.			1280	3.75	4800
CONCRETE DRIVEWAY (6")	SQFT			1230	2.25	2767.50
CONCRETE SIDEWALK (4")	SQFT			5155	1.50	7732.50
ASPHALT CONC. PAVEMENT (4")	TON			692	26.25	18165
CL 'C' ASPH. BASE COURSE (7")	TON			1217	26.25	31,946.25
						108,137.05
ENG'R & CONTINGENCIES 20%						21,627.41
TOTAL						129,764.46

5948

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

METROPOLITAN BRANCH
5821 N.E. GLISAN, PORTLAND, OREGON 97213
Telephone 238-8250

September 14, 1978

JOHN BURDETT
Director of Public Works
City of Forest Grove
City Hall
Forest Grove, OR 97116

Subject: Construction Financing
Main Street Connector
FAU Project
City of Forest Grove

John:

As you know, the State has a working agreement with the League of Oregon Cities which establishes policy for distributing Federal Aid Urban System money. This agreement allows a city to accumulate funds equal to three times its annual allotment and, in addition, to borrow against its future allotments up to a limit of three years. At present, Forest Grove has not requested any advance against future allocations and for that reason, only a part of the construction costs have been programmed with FHWA. If it is the City's intent to utilize this borrowing capability, you should advise us in writing so that we may proceed to reserve these funds.

Your letter to me should indicate if the City wishes to take advantage of an advance against future allocations to provide sufficient money for completion of construction. An exact amount is not critical but we should have your current best estimate of actual construction costs.

If you have questions on this, please give me a call.

Jon Rose

JON ROSE
Federal Aid Engineer

JR/ldo
cc: M. J. Klotz

PROJECT MANAGEMENT
PME ☑ CCE ☐ ON ☐
LGE ☑ FAE ☐ OPE ☐
SEP 15 1978

TAA Zahner File: PM FA
LG OP

Form 734-3122

8948 U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION 7-6-78

LETTER OF APPROVAL AID/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: M-5055(1)

ST. PROJECT NO.: See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.:

ITEM NO.: M-47

COUNTY NAME: Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. F. B. Klaboe, Chief of Operations
Oregon Department of Transportation
State of Oregon
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	7/6/78	FAU 5055	City Street

GENERAL LOCATION:

Willamina Avenue-26th Avenue Section (Main Street) Forest Grove

GENERAL DESCRIPTION OF WORK:

Program Change and PS&E preparation

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
- ☐ LOCATION ONLY

PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
- ☒ PREPARATION Including utility preparatory work TEC $2,000, FF $1,560
- ☒ OTHER (Specify) Program Change

- ☐ ACQUISITION OF RIGHT-OF-WAY
- CONTRUCTION - ADVERTISE FOR RECEIPT
- ☒ OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of 6/22/78 I approve the program change as follows:

Length of Project - change to 0.11 mile
Character of Proposed Work - delete illumination
Project Data - change to read as follows:

1) Preliminary engineering all phases including utility preparatory work.
2) Widen existing Main Street to provide a 40-foot curbed roadway with 5-foot sidewalk each side, which work consists of grade, drain, and high type pavement. Adjustment of utilities as required.

NOTED
F. B. KLABOE
Swan 7-10

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
7/6/78	G. K. Green	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

8948

ROBERT W STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

June 22, 1978

TO: G.L. Green, Division Administrator
Federal Highway administration

FROM: D.E. Swan
Federal Aid Manager

SUBJECT: Minor Program Change
Project No. M-5055(1)
Willamina Ave.-Lincoln Park Entrance (Forest Grove)
Washington County

We hereby request your approval of a minor program change to delete the proposed work on Willamina Avenue, which has been constructed by the City, from the subject project. This change will require revisions in the project data as follows:

Length of Project - change to 0.11 mile
Character of Proposed Work - delete illumination
Project Data - change to read as follows:

1) Preliminary engineering all phases including utility preparatory work.
2) Widen existing Main Street to provide a 40 foot curbed roadway with 5 foot sidewalk each side, which work consists of grade, drain, and high type pavement. Adjustment of utilities as required.

Your letter of May 24, 1978 concurred in a nonmajor action category for the subject project, therefore, we request authorization to proceed with the phase of preliminary engineering, including utility prepartory work, necessary to obtain PS & E approval at an estimated total cost of $2,000 with an obligation of $1,560 in federal funds.

CL:cw
cc: G. Zehner

8948

STATE OF OREGON

INTEROFFICE MEMO

TO: The Files

DATE: June 13, 1978

FROM: Robert H. Prange
Local Projects Supervisor

SUBJECT: Willamina Avenue-Lincoln Park Entrance
Main Street, FAU 5055
City of Forest Grove

The subject project is a portion of a previously approved project known as the Willamina Avenue-Main Street Connector. City has since constructed the Willamina Avenue portion of the project at their own expense.

An assessment for subject project has concurrence of FHWA as a nonmajor action. The project has been programmed and FHWA has authorized preliminary engineering.

All action should be taken to proceed with preliminary engineering on this project.

GEZ:dmc
cc: F. E. Terpin
D. O. Christiansen
D. E. Swan
Ed Hardt
Max Klotz
Jon Rose

8'-125-1307

8948

Form FHWA 121 (Rev. 6-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

DATE: May 24, 1978

In reply refer to: HFO.1-OR

Oregon Project M-5055(-)
Willamina Ave.-26th Ave. (Forest Grove)
City Street-Main Street
SUBJECT: Washington County
Project Assessment

FROM : G. L. Green, Division Administrator

TO : Mr. Gary A. Potter, Manager, Environmental Section
Oregon Department of Transportation
Salem, Oregon

The subject project assessment submitted with your May 15 letter has been reviewed.

We concur with your finding that the proposed project constitutes a nonmajor action. We also concur with your traffic noise analysis.

The proposed standards, design, and other specific details contained in the assessment will be subject to future reviews at the appropriate stage during the project development.

P. L. Rose
G. L. Green for

cc:
ODOT (Moehring, Mgr, Proj Mgmt)
OSHD (Reg 1, Env)
Environmental Section
May 25, 1978
cc: D. H. Moehring (2)
J. B. Boyd (3)
L. E. George
W. J. Hart
C. T. Keasey
J. H. Versteeg (4)
F. E. Terpin (3)
George Bell
Surfacing Design - Lab. Bldg.
Ed Hardt
R. N. Bothman
Jef Kaiser
Region Geologist
[redacted]
B. L. Gifford

PROJECT MANAGEMENT
PME ☒ CCE ☐ OM ☐
LGE ☒ FAE ☐ OPE ☐
JUN 2 1978
File: PM FA
TAA LG OP

OREGON STATE HIGHWAY DIVISION
PROJECT ASSESSMENT

PART 1. GENERAL INFORMATION

A. Project Identification:

Date May 15, 1978

Section Willamina Ave.-26th Ave.(Forest Grove) Unit (if appl) _____

County Washington City Forest Grove

Highway City Street - Main Street State Hwy. No. FAU 5055

Termini: M.P.(if appl) _____ Length 600 feet

Region I/METRO Construction Estimate $52,500 (FAUS) Program Amount

B. Purpose of Project: To widen the project section to match the existing improved sections at the project termini. This project is a final link in roadway improvements to urban standards on Main Street, between Pacific Avenue (ORE 8) and Willamina Avenue.

C. Origin & History of Project: The City originally submitted the project in July 1975, and included the construction of a new section of Willamina Street between Camino Drive and Main Street. Since this was likely to increase traffic on existing residential streets, FHWA required further traffic investigation and public input. The project was delayed because of lack of construction funds. The City proceeded with the Willamina Avenue construction, funding it with an LID (4 new houses have been constructed along the section now) and has submitted the present project minus the Willamina Avenue section.

D. General Description of Project: Widens the north end of Main Street to an urban standard cross section which matches the already improved sections to the south and on the west leg of Willamina Avenue. The project would provide sidewalks, curbs, shoulder parking and drainage.

Alignment: New _____ Existing X Combined _____

Typical Section: Existing: No. Lanes 2 ; Med. No ; Shldrs. No ; Parking No

Proposed: No. Lanes 2 ; Med. No ; Shldrs. w/curb Parking Yes

Traffic: Existing Facility: Existing ADT 3,500 ; Projected ADT * ; Yr. _____

Existing Level of Service _____

Proposed Facility: Projected ADT * ; Yr. _____

Projected Level of Service _____

* Not provided by city

Right of Way: Additional anticipated No (Yes, No); if yes, give approx. No. Parcels_____

Acres_____; Type of Relocation Req._____; No._____

Materials Source, Borrow, Waste Disposal Requirements, if any:

To be determined during PE. No significant quantities of waste or borrow are likely to be needed.

Type of Structure(s):

None

Brief Description of River or Stream and Type of Involvement, if any:

None

Local City, County or COG priorities of project:

FHWA and/or OSHD approvals given, if any: None to date.

Location or Design Alternatives (identify and describe):

No-Build - would leave a 600-foot unimproved section on an otherwise urban standard street.

Other Descriptive Information or Comments:

An existing open ditch on the west side of the street would be replaced with a storm sewer beneath the proposed sidewalk.

(Attach project sketch map.)

PART II. ENVIRONMENTAL ASSESSMENT

A. Brief Environmental Setting of Project Area:

1. Natural: The project is located in flat terrain with no significant waterways in the immediate area. Vegetation along the project consists of plants in residential yard fronts--mostly grass and shrubs. Only one tree, an English Walnut in rather poor condition, is located close enough to the back of the proposed east sidewalk line to possibly be affected by the project.

2. Cultural: The project is in a residential area. Some of the houses are located close to the edge of the roadway, but are not within the existing right-of-way. The front yards extend irregularly into the right-of-way, but are not highly maintained.

A city park (Lincoln Park) fronts the east side of the street on the south end of the project section. The park does not presently have any developed recreation facilities adjacent to the street.

B. Preliminary Assessment of Environmental Impacts:

1. Consequences and Significance of Right-of-Way Acquisition:

No new right-of-way required

2. Estimated Impact on Traffic Patterns:

No significant changes expected

Consequences--Air Quality, Noise, Safety, etc.:

No significant changes

3. Estimated Impact on Land Use:

No significant change expected. Improves appearance and pedestrian access in area so that it will be more desirable for residential uses.

Consequences:

No significant effects

4. Expected Impact on Natural Ecological Resources:

No significant effects. Some grass would be replaced by sidewalks.

Consequences:

5. Expected Impact on Cultural and Scenic Resources:

No significant adverse effects expected. No parkland would be affected.

Consequences:

6. Preliminary Identification of Areas of Critical Concern:

None

7. Potential for Controversial Issues:

None

8. Potential for Consistency of Proposal With:

a. Clean Air Implementation Plans - consistent--no changes in air quality expected. Indirect source permit not required.

b. Noise Standards - A noise study report is required.

c. Water Quality Standards - no significant effects on waterways, drainage.

d. Area Land Use and Transportation Plans, and Zoning - consistent--no significant impacts related to land use. Project improves existing city street circulation.

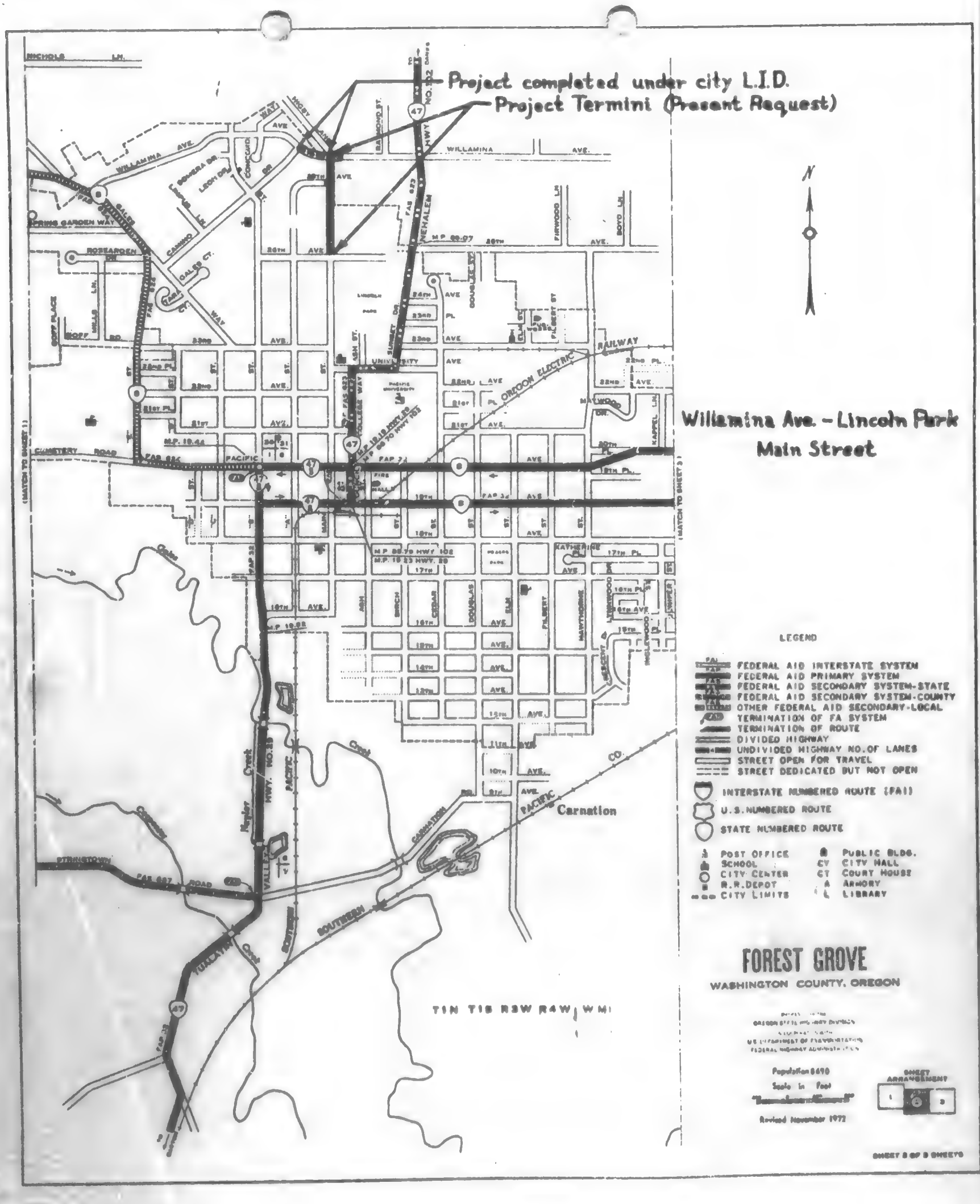
C. Recommended Type of Action and Documentation:

----------MAJOR ACTION---------- ----NON-MAJOR ACTION-----

SIGNIFICANT:	NON-SIGNIFICANT:	
____ D & FEIS	____ D & F Neg.Dec.	_X_ ASSESSMENT ONLY
____ Section 4(f)	____ Section 4(f)	____ STATEWIDE ASSESSMENT

Basis for Type of Action and Documentation: The proposed project is not of a magnitude or environmental significance which would warrant the processing of a negative declaration or EIS.

D. Recommended Project Category: ____ 1 ____ 2 _X_ 3 ____ 4


Project completed under city L.I.D.
Project Termini (Present Request)
Willamina Ave. – Lincoln Park
Main Street
N
LEGEND
FEDERAL AID INTERSTATE SYSTEM
FEDERAL AID PRIMARY SYSTEM
FEDERAL AID SECONDARY SYSTEM-STATE
FEDERAL AID SECONDARY SYSTEM-COUNTY
OTHER FEDERAL AID SECONDARY-LOCAL
TERMINATION OF FA SYSTEM
TERMINATION OF ROUTE
DIVIDED HIGHWAY
UNDIVIDED HIGHWAY NO. OF LANES
STREET OPEN FOR TRAVEL
STREET DEDICATED BUT NOT OPEN
INTERSTATE NUMBERED ROUTE (FAI)
U.S. NUMBERED ROUTE
STATE NUMBERED ROUTE
POST OFFICE
SCHOOL
CITY CENTER
R.R. DEPOT
CITY LIMITS
PUBLIC BLDG.
CH CITY HALL
CT COURT HOUSE
A ARMORY
L LIBRARY
Carnation
T1N T1S R3W R4W W M
FOREST GROVE
WASHINGTON COUNTY, OREGON
Population 8490
Scale in Feet
Revised November 1972
SHEET ARRANGEMENT
SHEET 2 OF 3 SHEETS

...CAL CROSS SECTION
(... SCALE)
Base @ R_{95}-3

CONSTRUCT CONC. CURBS

28TH AVE.

CONSTRUCT 12" STM.

...INA AVE. EXIST. 15" STM.
EXIST. 12" STM.

PROJECT LIMITS

EXISTG OPEN DITCH

P/L

P/L

P/L

MAIN ST.

...Project

LINCOLN PARK ENTRANCE

EXISTG. TILE

Existing Pavement

CITY OF FORE...

PROPOS...
ST. EXT...

SCALE: 1" = ...

DESIGN. DEC

CHE...

8948

#78-33

Form E-39 (Rev. 9-71)

OREGON STATE HIGHWAY DIVISION

AUTHORITY FOR SURVEY

Location: Willamina Ave. - Lincoln Park

Date: May 8, 1978

Highway: Main Street - City of Forest Grove

Authorization No.: 1

County: Washington

Survey Prefix: (Assigned by Salem office)

Description of termini, route, length, etc.:

Northerly end of survey is located at intersection of Willamina Avenue, the southerly end of survey is located at entrance to Lincoln Park. Overall length of survey is 650 linear feet.

Proposed:

40-foot paved street with curbs and 5-foot sidewalk on each side

Purpose of survey:

City to perform PE and prepare preliminary plans, specifications and estimate.

State to monitor PE, review plans, and complete PS & E.

FAUS
Cat. 3NM

		Estimate of Cost
Field Survey	(901)	200
Citizen Participation	(902)	
City or County	(903)	2,500
Consultant	(904)	
Final Design	(905)	800
Bridge Design	(906)	
Preliminary Design	(907)	
R/W Descriptions	(909)	
Soils & Geology	(910)	200
Traffic	(911)	
Landscape	(912)	
Liaison	(913)	
Utility	(914)	
Photogrammetry	(916)	
Location Studies	(918)	
Engr. Graphics	(919)	
Office Engineer	(920)	
Specifications	(921)	500
Environmental	(923)	
Planning	(924)	
Foundation Exploration	(926)	
Seminars	(950)	
Hearings	(980)	
Equal Opportunity	(985)	
Advisory Committees	(986)	

INSTRUCTIONS

Submit four copies to Salem. After approval by the Assistant State Highway Engineer, one copy will be sent to the Regional Engineer and one copy to the Resident Engineer.

This form does not constitute authority for making survey until approved and returned.

Submit separate order for each survey.

Total estimated cost of survey . . . . . $ 4,200

Previous authorization . . . . . .

Additional authorization requested . . . . .

Additional authorization approved (Salem) . .

Total all authorizations approved (Salem) . .

Requests made by:

R. T. Owen, Metro Location Engineer

Recommended for Approval:

M. J. Klontz, Metro Technical Services Engineer

Recommended for Approval:

Location Engineer

Approved:

SP 23604-734

8948

STATE OF OREGON

INTEROFFICE MEMO

D.H. Moehring, Project Management, Attn: G.W. Wimer

DATE: May 5, 1978

FROM: Max J. Klotz
Technical Services Engineer

SUBJECT: FAUS Project Request
Willamina Ave. - Lincoln Park
Main Street
City of Forest Grove
Washington County
Planning File No. 78-33

Attached is a request packet for a street improvement project in Washington County.

The project is included in the six-year program on Page 44.

The packet contains:

1. Letters showing previous authorizations
2. Project request
3. Environmental assessment (previously sent to Gary Potter)
4. Project information sheet
5. Authority for survey

Since we have had previous approvals for a larger project of which this is a portion, I am not sure what needs to be done now by your office. I am sure, however, that you will do whatever needs to be done in order to be certain we have authority to proceed with the project.

js

cc: Frank Terpin

81-125-1367

2748

5-1-78

OREGON STATE HIGHWAY DIVISION
PROJECT ASSESSMENT

PART 1. GENERAL INFORMATION

A. Project Identification:

Date 1 May 1978

Section Willamina Ave. - Lincoln Park — Unit (if appl) _____

County Washington — City Forest Grove

Highway Main Street — State Hwy. No. FAU 5055

Termini: M.P.(if appl) _____ — Length 600 feet

Region I/METRO — Construction Estimate $52,500 (FAUS) Program Amount

B. Purpose of Project: To widen the project section to match the existing improved sections at the project termini. This project is a final link in roadway improvements to urban standards on Main Street, between Pacific Avenue (ORE 8) and Willamina Avenue.

C. Origin & History of Project: The City originally submitted the project in July 1975, and included the construction of a new section of Willamina Street between Camino Drive and Main Street. Since this was likely to increase traffic on existing residential streets, FHWA required further traffic investigation and public input. The project was delayed because of lack of construction funds. The City proceeded with the Willamina Avenue construction, funding it with an LID (4 new houses have been constructed along the section now) and has submitted the present project minus the Willamina Avenue section.

D. General Description of Project: Widens the north end of Main Street to an urban standard cross section which matches the already improved sections to the south and on the west leg of Willamina Avenue. The project would provide sidewalks, curbs, shoulder parking and drainage.

Alignment: New _____ Existing x Combined _____

Typical Section: Existing: No. Lanes 2 ; Med. No ; Shldrs. No ; Parking No

Proposed: No. Lanes 2 ; Med. No ; Shldrs. w/curb Parking Yes

Traffic: Existing Facility: Existing ADT 3,500 ; Projected ADT * ; Yr. _____

Existing Level of Service _____

Proposed Facility: Projected ADT * ; Yr. _____

Projected Level of Service _____

* Not provided by city

734-3953 (10-75)

Right of Way: Additional anticipated No (Yes, No); if yes, give approx. No. Parcels_____

Acres_____; Type of Relocation Req._____; No._____

Materials Source, Borrow, Waste Disposal Requirements, if any:

To be determined during PE. No significant quantities of waste or borrow are likely to be needed.

Type of Structure(s):

None

Brief Description of River or Stream and Type of Involvement, if any:

None

Local City, County or COG priorities of project:

FHWA and/or OSHD approvals given, if any:

Location or Design Alternatives (identify and describe):

No-Build - would leave a 600-foot unimproved section on an otherwise urban standard street.

Other Descriptive Information or Comments:

An existing open ditch on the west side of the street would be replaced with a storm sewer beneath the proposed sidewalk.

(Attach project sketch map.)

PART II. ENVIRONMENTAL ASSESSMENT

A. Brief Environmental Setting of Project Area:

1. Natural: The project is located in flat terrain with no significant waterways in the immediate area. Vegetation along the project consists of plants in residential yard fronts--mostly grass and shrubs. Only one tree, an English Walnut in rather poor condition, is located close enough to the back of the proposed east sidewalk line to possibly be affected by the project.

2. Cultural: The project is in a residential area. Some of the houses are located close to the edge of the roadway, but are not within the existing right-of-way. The front yards extend irregularly into the right-of-way, but are not highly maintained.

A city park (Lincoln Park) fronts the east side of the street on the south end of the project section. The park does not presently have any developed recreation facilities adjacent to the street.

B. Preliminary Assessment of Environmental Impacts:

1. Consequences and Significance of Right-of-Way Acquisition:

No new right-of-way required

2. Estimated Impact on Traffic Patterns:

No significant changes expected

Consequences--Air Quality, Noise, Safety, etc.:

No significant changes

3. Estimated Impact on Land Use:

No significant change expected. Improves appearance and pedestrian access in area so that it will be more desirable for residential uses.

Consequences:

No significant effects

4. Expected Impact on Natural Ecological Resources:

No significant effects. Some grass would be replaced by sidewalks.

Consequences:

5. Expected Impact on Cultural and Scenic Resources:

No significant adverse effects expected. No parkland would be affected.

Consequences:

6. Preliminary Identification of Areas of Critical Concern:

None

7. Potential for Controversial Issues:

None

8. Potential for Consistency of Proposal With:

a. Clean Air Implementation Plans - consistent--no changes in air quality expected. Indirect source permit not required.

b. Noise Standards - consistent--no significant changes expected. This constitutes the Noise Study Report per FHPM-773.

c. Water Quality Standards - no significant effects on waterways, drainage.

d. Area Land Use and Transportation Plans, and Zoning - consistent--no significant impacts related to land use. Project improves existing city street circulation.

C. Recommended Type of Action and Documentation:

----------MAJOR ACTION---------- ----NON-MAJOR ACTION-----

SIGNIFICANT:	NON-SIGNIFICANT:	
___ D & FEIS	___ D & F Neg.Dec.	_x_ ASSESSMENT ONLY
___ Section 4(f)	___ Section 4(f)	___ STATEWIDE ASSESSMENT

Basis for Type of Action and Documentation: The proposed project is not of a magnitude or environmental significance which would warrant the processing of a negative declaration or EIS.

D. Recommended Project Category: ___ 1 ___ 2 _x_ 3 ___ 4

Project completed under city L.I.D.

Project Termini (Present Request)

N

Willamina Ave. – Lincoln Park
Main Street

LEGEND

- FEDERAL AID INTERSTATE SYSTEM
- FEDERAL AID PRIMARY SYSTEM
- FEDERAL AID SECONDARY SYSTEM-STATE
- FEDERAL AID SECONDARY SYSTEM-COUNTY
- OTHER FEDERAL AID SECONDARY-LOCAL
- TERMINATION OF FA SYSTEM
- TERMINATION OF ROUTE
- DIVIDED HIGHWAY
- UNDIVIDED HIGHWAY-NO. OF LANES
- STREET OPEN FOR TRAVEL
- STREET DEDICATED BUT NOT OPEN
- INTERSTATE NUMBERED ROUTE (FAI)
- U.S. NUMBERED ROUTE
- STATE NUMBERED ROUTE
- POST OFFICE
- SCHOOL
- CITY CENTER
- R.R. DEPOT
- CITY LIMITS
- PUBLIC BLDG.
- CITY HALL
- COURT HOUSE
- ARMORY
- LIBRARY

FOREST GROVE

WASHINGTON COUNTY, OREGON

T1N T1S R3W R4W W M

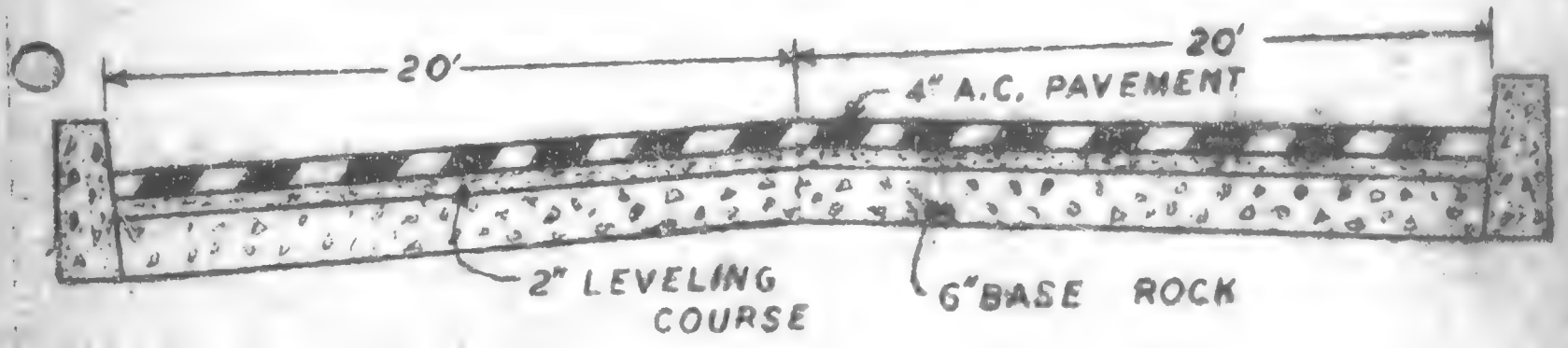
Population 8690

Scale in feet

Revised November 1972

SHEET ARRANGEMENT

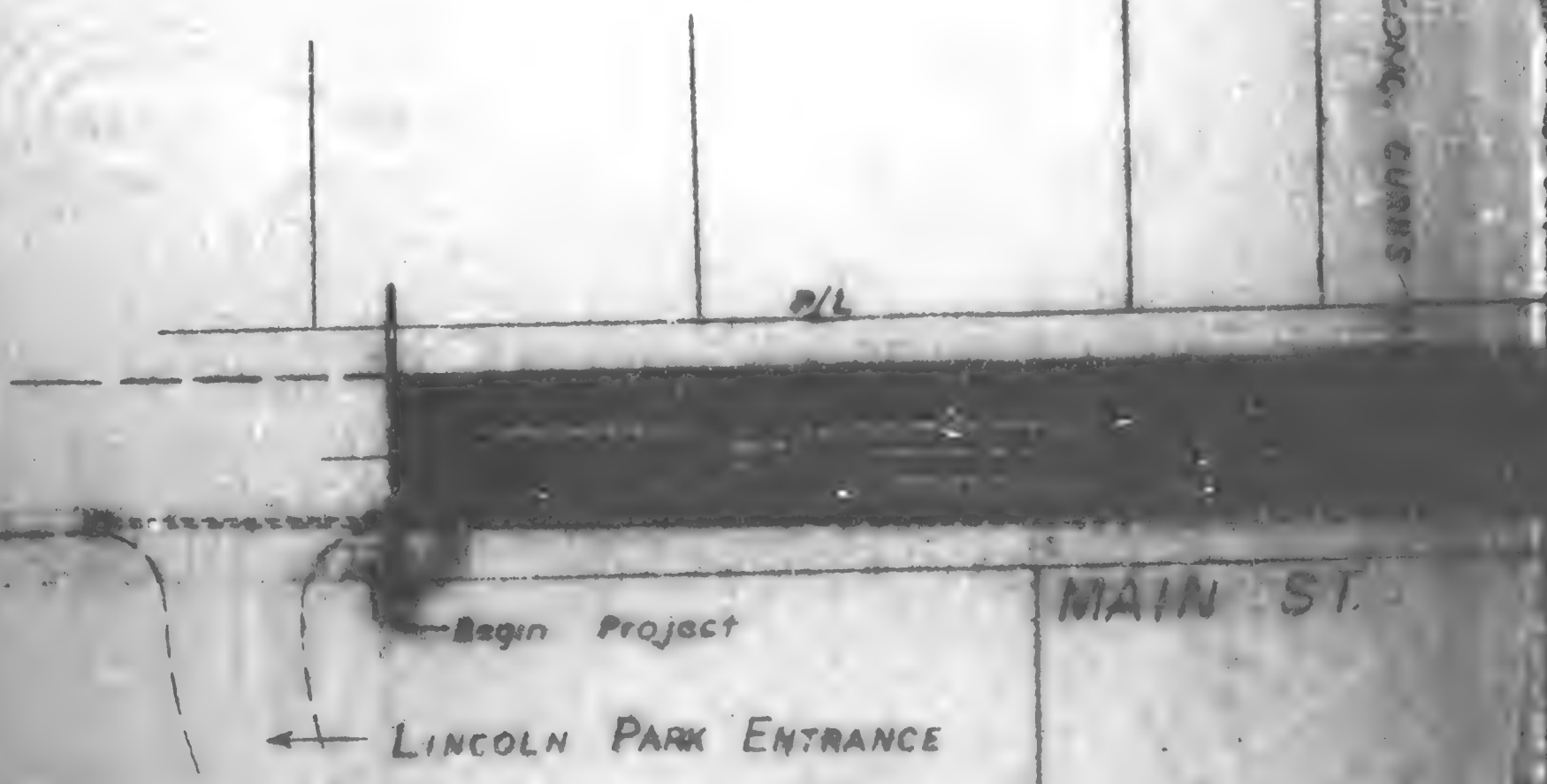
SHEET 2 OF 3 SHEETS



TYPICAL CROSS SECTION
(NO SCALE)

Soil Bearing $R_{95}=3$

CONSTRUCT CONC. CURBS



P/L

CONC. CURBS

WILLAMINA AVE.

EXIST. 15" STM.

EXIST. 12" STM.

CONSTRUCT 12" STM.

PROJECT LIMITS

28TH AVE.

CONSTRUCT CONC. CURBS

N

CITY OF FOREST GROVE

PROPOSED MA

ST. EXTENSI

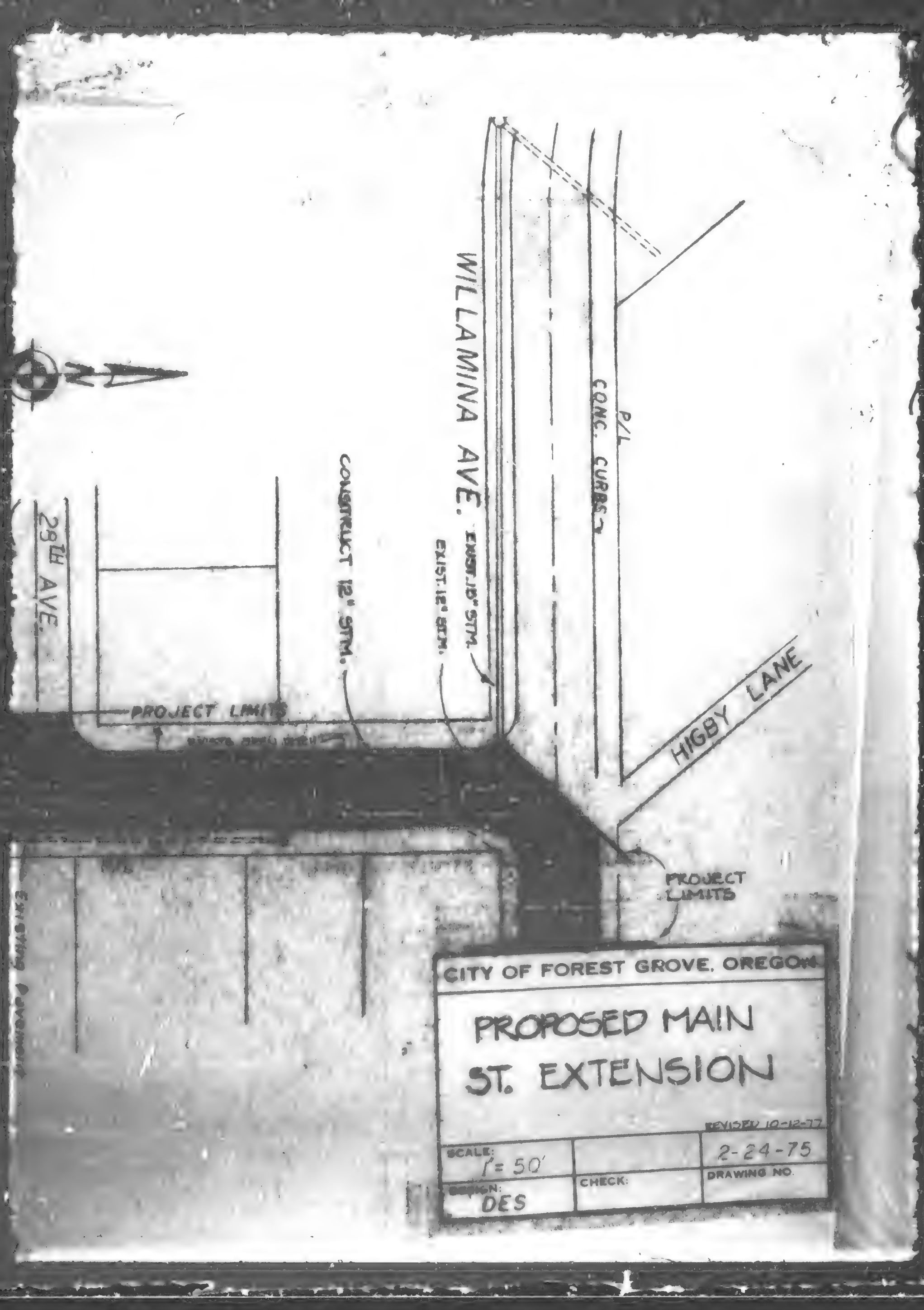
SCALE: 1" = 50'

CHECK:

DES

Existing Pavement

EXISTG. TILE


WILLAMINA AVE.
P/L
CONC. CURBS
EXIST. 12" STM.
EXIST. 18" STM.
CONSTRUCT 12" STM.
HIGBY LANE
PROJECT LIMITS
PROJECT LIMITS
29TH AVE.
EXISTING PAVEMENT
N
CITY OF FOREST GROVE, OREGON
PROPOSED MAIN ST. EXTENSION
REVISED 10-12-77
SCALE: 1" = 50'
DESIGN: DES
CHECK:
2-24-75
DRAWING NO.

2948

PROJECT INFORMATION SHEET
(to be submitted with the project request)

Section Willamina Ave. - Lincoln Park Date 3/20/78

Highway Main Street City of Forest Grove County Washington

Existing Facility

Access control? None parking restrictions? None
Airport within 2 miles? None name
Water development in the area? None
Recreation areas City park adjacent to main street on east (Lincoln Park)
Historical areas None

Roadway: no. lanes 2 paved shoulders? None
pavement width 20 ft. oiled surface, no shoulders

Structures: MP description
None

Signals: location None

Descriptions of adjacent sections

North end: "T" Intersection with Willamina Ave. 40 ft. paved curb to curb.
South end: 2 lanes with parking, 40 ft. paved surface curb to curb.

Railroad crossings

Name of railroad no. of tracks
Number of trains no. of hi-speed trains
Present protection
Proposed protection
Railroad benefits

8948

STATE OF OREGON
DEPARTMENT OF TRANSPORTATION

INTEROFFICE MEMO
Metropolitan Branch

GARY A. POTTER, Manager
Environmental Section

DATE: February 10, 1978

FROM: MAX J. KLOTZ
METRO Technical Services Engineer

SUBJECT: Main Street Extension
FAU 5055
City of Forest Grove

The subject project is a portion of a larger project previously submitted under the title of "Willamina Avenue-Main Street Connector".

An assessment was made on the original project and the project was given a category 3NM classification. FHWA did not completely agree with this. Their feeling was that the impacts warranted a Neg. Dec. A meeting was held and it was agreed that FHWA would approve the project if a public meeting was held so the extent of controversy could be determined and the proper classification assigned. At the same time it was found that there was not adequate funds to cover the project. It was then decided to hold off on the public meeting until such time as money was available and the city wanted to proceed with the project. This happened in December 1975.

Now comes the city with a request to do just the Main Street portion of the original project. Since December 1975 the city performed the work on Willamina Avenue at their own expense.

Since the new request is for a lesser project than originally considered it does not appear to me that we need reassess it. It would seem to be even more firmly established as a 3NM. Do you agree?

We still have a commitment to FHWA to hold a public hearing to determine controversy. Is this still necessary?

Perhaps the new project request should be run past the FHWA for concurrence or whatever.

Please let me know what you recommend. A copy of the new request is attached.

ja
Attachments
cc: D. H. Moehring w/request - Do we need to reprogram?
G. W. Kaiser
E. L. Hardt
J. R. Rose
[redacted] Packet

Gary Potter called Max in reply and said that a new assessment would be needed. No memo was written. CAM - 24Apr78

81-125-1387

STATUS SHEET

FAUS

REQUEST DATE: Revised Oct 7, '77

PE PREFIX: 339-1909

CONSTRUCTION PREFIX:

PROJECT NAME: MAIN ST. EXTENSION (SEE WILLAMINA-MAIN)

APPLICANT: FOREST GROVE

CRAG APPROVAL: N/A

PUC APPROVAL:

P.E. BY: STATE ☐ APPLICANT ☒

☐ CONTRACT

☐ FORCE ACCOUNT

PEA FROM APPLICANT: Aug. 1, '75
TO ENVIRONMENTAL UNIT:
TO PROJECT MANAGEMENT:
TO FHWA: Sept 3, '75

CATEGORY ASSIGNED
☐ 1 ☐ 2 ☐ 3
☐ 3 Non Major Date

APPLICATION
To Commission:
Commission Approval: May 30, '75

SURVEY AUTHORIZATION
Requested by Salem: June 6, '75
Written: June 24, '75
Approved: Sept 23, '75

AGREEMENT
Written: July 30, '75
Signed: Aug. 12, '75
Approved: Sept 22, '75

ADVANCE DEPOSIT
Requested:
Received: Sept 8, '75
Amount: $660

FORCE ORDER
Requested by Salem:
Written:
Approved:

PROGRAM REQUEST
To FHWA: Aug. 7, '75
Approved: Sept 23, '75

F.A. PROJECT NO.
M-5055 (1)

RESIDENT ENGINEER
Cochell

A-95: N/A
Prepared:
Approved:

AUTHORIZATION TO PROCEED
PE: Sept 23, '75
Construction:
Applicant Notified:

ESTIMATED COST
PE: 2500
R/W:
Construction: 50,000

R/W TO BE PURCHASED BY
None
☐ STATE
☐ APPLICANT

PE ORIENTATION MEETING
Date:

R/W AFFIDAVIT
Sent:
Returned:

8948

(Supplemental)

FEDERAL AID PROJECT REQUEST

Date October 7, 1977

Applicant Agency City of Forest Grove

Request for: Off-System ____, FAS-C ____, FAUS X Project

Federal Aid Route No. _____ Route Name _____

Project Name Main Street extension (previously Willamina Avenue - Main Street connector (Forest Grove) section, FAU 5055)

Project Length 600 feet Project Location (Attach sketch map)

Project Description Widen Main Street, a north south arterial, to 40 feet, include curbs and storm drainage.

Average Daily Traffic 3,500 Design Speed 25 MPH

Complete Applicable Sections:

I. ROADWAY DATA

1. Existing Roadway: (Attach sketch)

Width 20 ft. Travel Lanes 2 - 10 feet Shoulders 6 ft. gravel
Medians none Parking none
Sidewalks none
Remarks open drainage ditch on west side.

2. Desired Roadway Cross Section: (Attach sketch)

Width 40 ft. Travel Lanes 2 - 12 ft. Shoulders —
Medians — Parking 2 - 8 ft.
Curbed Yes Length Curb Radii 20 ft.
Sidewalk/Bikeway 5 ft. sidewalk each side
Remarks

II. RIGHT-OF-WAY DATA

1. Existing Right-of-Way:

General Width 66 ft. Minimum 66 ft. Maximum 66 ft.

2. Has right-of-way been acquired for this project subsequent to January 2, 1971?
Yes _____ No X

3. Will additional right-of-way be needed? Yes _____ No X
If answer is "yes," will cost of right-of-way be subject to Federal reimbursement? Yes _____ No _____
Remarks

MA PDM PDE TSE SPC
ODOT - METRO

III. TRAFFIC CONTROL DATA

OCT 31 1977

1. Existing Signalization and Location:

None

AM PPS FILE 1/A

2. Proposed Signalization:

Location None

Type

Phases

Type of Suspension

Interconnected

Remarks

3. Permanent Signing:

Include in project or by applicant? By Applicant

4. Permanent Striping:

Include in project or by applicant? By Applicant

IV. ILLUMINATION DATA

1. Existing Illumination and Location:

175 Watt Street Light north side Willamina at Main Street
175 Watt Street Light east side Main St. at 28th
175 Watt Street Light east side Main Street 275 ft. south at 28th

2. Proposed Illumination:

Location None

Type

Remarks

V. STRUCTURE DATA

1. Existing Structure:

Location None

Type

Approach Roadway Width Shoulder Width

Length Width

To remain in place?

2. Proposed Structure:

Location None

Approximate Size: Length Width

Are sidewalk/bikeways desired: _____

Are any utilities to be attached to structure? _____

Are provisions for illumination desired? _____

Are there any unusual or complicating conditions? _____

Remarks _____

VI. RAILROAD DATA

1. Are there any railroad crossings? Yes _____ No X

   Name of Railroad _____
   Existing Crossing Protection _____

2. Will existing railroad crossing be altered? _____

   Remarks _____

VII. ACTION PLAN REQUIREMENTS

During project development for Category 1, 2, and 3 projects, the city or county shall perform and document responsibilities as found indexed in the Oregon Action Plan, particularly Citizen Involvement and Participation; Environmental Aspects; and Public Hearing Requirements.

The OSHD Region Engineer will provide assistance, liaison and monitoring for these activities.

Responsible local office and party to be contacted for the following activities:

1.	Citizen Involvement	Department of Community Development Office
2.	Environmental	Department of Community Development Office
3.	Public Hearing	Department of Community Development Office

Remarks _____

VIII. GENERAL INFORMATION

1. Project preliminary engineering to be performed by:

   Applicant X State _____ Consultant _____

2. Project construction engineering to be performed by:

Applicant_____ State__X_____ Consultant_____

3. Will applicant perform any work prior to or after award of contract?
Yes__X_____ No_____
If "yes," describe briefly: _____
As much engineering as State will allow.

4. Applicant's estimate of cost for requested project:

Roadway Work	$50,000.00
Right-of-way costs (if participating)	
Traffic control	
Illumination	
Structures	
Railroad	
Other_____	
Preliminary engineering	2,500.00
PROJECT TOTAL	$52,500.00

Remarks This project is part of the Willamina Avenue - Main Street Connect (Forest Grove) Section of FAU 5055 project which was held in abeyance because of lack of funds. The Willamina extension part of the original project is being constructed through local improvement district. An

(continued on back)

THIS APPLICATION IS AN OFFICIAL REQUEST FROM:

CITY OF Forest Grove and/or _____ COUNTY

By David Lancy J. Mayor

By Daniel F. Durr City Manager

By_____

By_____

By_____

Urban System Project Agreement has been signed by City and State. City has paid $660 tc the State for preliminary engineering.

8948

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Region 1 - Tiwaukie

December 31, 1975

FILE: LOC 17

FROM: EDWARD L. HARDT
Regional Engineer

SUBJECT: WILLAMINA-MAIN STREET PROJECT
CITY OF FOREST GROVE

TO: L. W. RULIEN
Project Management Engineer

The City of Forest Grove's urban allocation is not sufficient to handle both the Willamina-Main Street and the Thatcher Road-23rd Street projects which have been approved by the Transportation Commission. I recently wrote to Forest Grove's Director of Public Works, John Burdett, and suggested that they hold off on the second project until the bids were opened for the first in order to get a better handle on available dollars. I have attached a copy of my letter to the City for your reference.

Attached is a copy of a December 30 letter back from Mr. Burdett concurring with my suggestion. The purpose of this letter is to request that you keep us informed as to the status of Forest Grove's funds at the time of the bid opening so that we can advise Forest Grove when they should proceed with the second project. By copy of this letter I am asking Hal Versteeg to take note of the second paragraph of Mr. Burdett's letter and to let us know when the final design gets to a stage where the right of way for the project can be acquired.

ELH/cr
Attachments
cc Hal Versteeg w/attach.
Jim Cechell "
Ken Rolfe "

RECEIVED
COUNTY & CITY SECTION
JAN 6 - 1976

PROJECT MANAGER	ENGR.	CONST.	UE	AE	GE
ROUTING	OPE	CE	RE	RPE	
P.M. ENGINEER		ACTION	INFO		
PROJ. DEV. ENGR.					
OFFICE ENGR.					
COUNTY-CITY	JAN - 2 1976				
FEDERAL AID					
INVENTORY-NEEDS					
MILEAGE CONTROL					
PROG. & SCHEDULE					
REMARKS:					

8948

324-1507

December 22, 1975

Mr. John Burdett
City Engineer
City of Forest Grove
Forest Grove, OR 97116

Dear Mr. Burdett:

You will recall that the Federal Highway Administration had some objections to the Highway Division's environmental assessment for the Willamina Avenue-Main Street project in Forest Grove. Attached you will find a memo from our Environmental Section regarding a meeting with the FHWA which was held regarding the question of level of environmental work on that project. As you can see, the question of the necessity for a negative declaration will hinge around the attitude of the citizens for the project as evidenced at a hearing for the project. This being the case, this hearing should be held in conformance with Federal standards. At such time as you schedule a hearing for the project, please let us know and we will give whatever assistance is needed.

Sincerely,

SIGNED BY
EDWARD L. HARDT

Edward L. Hardt
Regional Engineer

Attachment
ELH/cr
bc Jim Cochell w/attachment

REGION I
RME RCE OE TE
UE SO RSM RSC
RBI EIV FAE
NOTED

8948

DEC 22 1975

fans

OREGON STATE HIGHWAY DIVISION

REGION 1

P.O. BOX 02157 • PORTLAND 97202 • Phone 653-3090

December 18, 1975

ROBERT W. STRAUB
GOVERNOR

F. A. KLABOE
Administrator and
State Highway Engineer

RECEIVED
COUNTY & CITY SECTION
DEC 23 1975
☐ ENGR. ☐ COOR. ☑ OE ☐ AE ■ UE
☑ UPE ☑ CE ☐ RE ☐ RPE ☐

Mr. John Burdett
City Engineer
City of Forest Grove
Forest Grove, OR 97116

Dear Mr. Burdett:

Confirming our telephone conversation of the other day regarding the funding status of Forest Grove's two urban projects, Thatcher Road-23rd Street and Willamina Avenue-Main Street, this is the current cost estimate:

Thatcher Road-23rd Street		
Preliminary Engineering		6,000
Construction Cost	159,000	
Construction Engineering and Contingencies (20%)	31,000	190,000
[redacted]		
Preliminary Engineering		6,000
		$202,000
Urban funds currently available including 22% City and State match		165,750
	Deficit	$ 36,250

Congress has not yet acted on the next Highway bill but assuming that the current program is extended, on July 1, 1976 Forest Grove will have available an additional $57,000, which includes the 22% match.

With the deficit of $36,250 as shown for the currently approved projects, it is my suggestion that the preliminary engineering work on the Willamina-Main Street project not be started until the construction funding for the project is in sight. I would suggest that we wait until the bids are opened on the Thatcher Road-23rd Street project, currently scheduled for April 29, in order to determine the actual construction cost. At that time we should have a new Highway bill and the status of future urban funds should be known. If we were to go ahead with PE on the Willamina-

Form 61-734-3122

Main Street project now, it is possible that the project could not be funded until July of 1977. Since we have planned a hearing for that project, I believe it would be in the citizens best interest to delay the hearing until the project is a little closer at hand.

Regarding your concern for the future of the Thatcher Road-23rd Street project, in the unlikely event that future funds are not available to completely finance its construction, I am told that this would in no way endanger the Federal and State participation in the cost of preliminary engineering. If urban funds were not available for construction, the project would merely be shelved until funding was available.

I would appreciate your advice on how you wish to proceed with the preliminary engineering on the Willamina-Main Street project.

Sincerely,

ORIGINAL SIGNED BY
EDWARD L. HARDT

Edward L. Hardt
Regional Engineer

ELH/cr
bc L. W. Rulien
Gary Potter
Jim Cochell

8948

FORM 81.7.14.3030

OREGON STATE HIGHWAY DIVISION

FILE: ENV 2-1

INTER-OFFICE CORRESPONDENCE

December 17, 1975

Salem, Oregon 97310

FROM: George Ramjoue'
Project Coordinator

SUBJECT: Willamina Ave-Main Street
Connector
Project Assessment

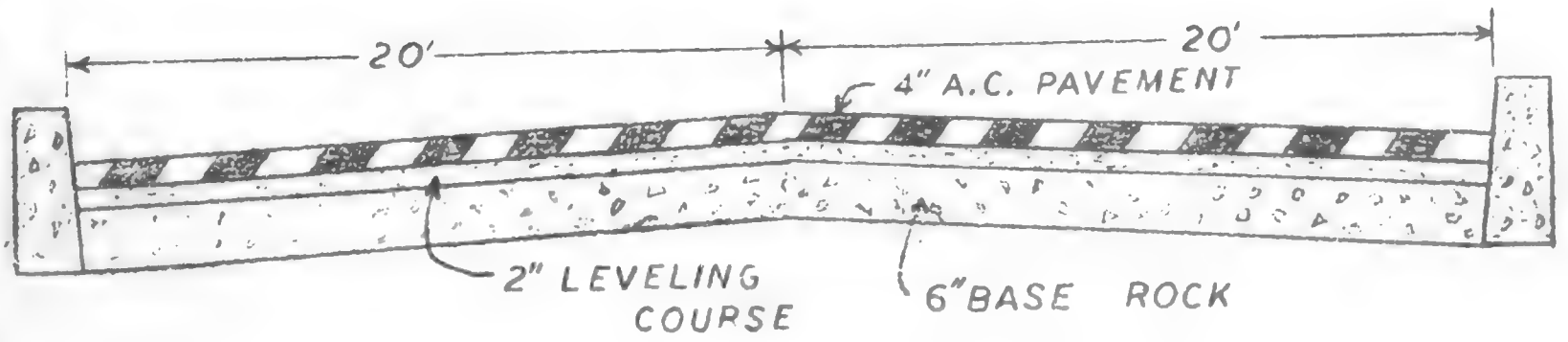
TO: MEMO TO THE FILES

Pursuant to FHWA's none-concurrence with OSHD's non-major classification recommendation of the subject project assessment, a meeting was held with Bill Kappus and Wally Bryant (FHWA) to discuss both the position of OSHD and FHWA. It was agreed that there would be some adverse traffic and related impacts to the proposal, but the significance of the impacts was not readily discernible. It was, therefore, decided that before a decision was made to prepare a negative declaration or have the assessment suffice for environmental documentation, the City of Forest Grove should hold a public hearing in a manner which would fulfill Federal hearing requirements. Subsequent to and dependent upon the nature of the hearing comments, a negative declaration or a project assessment would be pursued. If, as a result of the public hearing, significant and valid issues are raised by the public, a negative declaration would be prepared. If the hearing results in non-controversial issues being raised and general public support for the project is voiced, then an assessment would be approved.

GR:sz

cc: Ed Hardt
Gary A. Potter
Cam Gilmour
Bill Kappus-FHWA

RME RCE RSE
IE RECEIVED RSM
UE DEC 18 1975 RSC
SO REGION 1 RBL



TYPICAL CROSS SECTION
(NO SCALE)
Soil Bearing $R_{95}=3$

CONSTRUCT CONC. CURBS

P/L

Begin Project

LINCOLN PARK ENTRANCE

MAIN ST.

EXIST. 12" STM.

CONSTRUCT 12" STM.

PROJECT LIMITS

EXISTG. OPEN DITCH

20 20

33 33

P/L

N

28TH AVE.

Existing Pavement

EXISTG. TILE

CONSTRUCT CONC. CURBS

MAIN ST.

20'
PAVEMENT

ROCK

HIGBY LANE

PROJECT LIMITS

P/L

CONC. CURBS

WILLAMINA AVE.

EXIST. 15" STM.

EXIST. 12" STM.

CONSTRUCT 12" STM.

EXISTG. OPEN DITCH

PROJECT LIMITS

P/L

28TH AVE.

N

CITY OF FOREST GROVE, OREGON

PROPOSED MAIN ST. EXTENSION

REVISED 10-10-77

SCALE		2-2-75
DESIGN DES	CHECK	DRAWING NO

Form FHWA 121 (Rev. 5-73)

8948

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: December 4, 1975

In reply refer to: 1041DA.1

SUBJECT: Oregon Project M-5055(-)
Willamina Avenue-Main Street Connector
Willamina Avenue-Main Street
Project Assessment

FROM : G. L. Green, Division Administrator

TO : Mr. F. P. Klaboe, Administrator & State Highway Engineer

The subject project assessment submitted with Mr. Rulien's November 24 letter has been reviewed. We cannot concur with your finding that the proposed project constitutes a NONMAJOR action.

The Willamina Avenue Connector will in all probability result in considerable additional through traffic utilizing Willamina Avenue and Camino Drive between the Nehalem Highway and Gales Creek Road. Since an increase in traffic could result in adverse environmental effects within this residential area and because of the acknowledged concern of the area residents and the potential for controversial issues, a major nonsignificant classification requiring a negative declaration is recommended for this proposed project.

The proposed standards, the design, and other specific details contained in the assessment are subject to future reviews.

William A. Kappus
for G. L. Green

cc:
OSHD (Potter)
OSHD (Laux)
OSHD (Region 1, Markham)

NOTED
R. L. SCHROEDER

RECEIVED
DEC 10 1975
office of
assistant state highway engineer

RECEIVED
STATE HWY ENGR
DEC 9 '75
REFER TO
Rulien
FOR
Info | Inves | R/D | D/R | Sign | Act | File
Cy Schroeder

8948

Form 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: PRO 4

Region 1 - Milwaukie

September 30, 1975

ORIGINAL SIGNED BY
EDWARD L. HARDT

FROM: EDWARD L. HARDT
Regional Engineer

TO: ROBERT E. ROYER
Planning Manager

SUBJECT: WILLAMINA AVE.-MAIN STREET
CONNECTOR
CITY OF FOREST GROVE

The City of Forest Grove has proposed an urban system project to be done on their local street system, which is called the Willamina Ave.-Main Street Connector Section. The FHWA has requested additional traffic information as part of the project assessment before they will approve the project. I have attached a copy of their memo for further details.

The project consists of cutting through a new street where one does not now exist. Attached you will find a sketch map which illustrates the proposal. It is requested that you undertake a study to "determine the changes in traffic patterns and traffic characteristics", so that the project can move forward. Since this is holding up the project, your earliest attention is requested. Our local contact in Forest Grove is John Burdett, City Engineer, and I would refer him to you for local details. Gary Potter's section can provide a copy of the environmental assessment, if you need it.

ELH/cr
Attachments
cc L. W. Rulien
Gary Potter
Jim Cochell w/attachments

RECEIVED
COUNTY & CITY SECTION
OCT 2 - 1975
☐ ENGR. ☐ CoDR. ☐ UE ☐ AE ■ UE

PROJECT PLANNING DEVELOPMENT SECTION

ROUTING	ACTION	INFO
P.M. ENGINEER		
PROJ. DEV. ENGR.		
OFFICE ENGR.		
COUNTY-CITY		
FEDERAL AID		
INVENTORY-NEEDS		
MILEAGE CONTROL		
PROB. & BONFOULS		

REMARKS:

OCT - 1 1975

12-15-75
FHWA wants
a NEG. DEC.

EAU-[illegible] Forest Grove

U. S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

8948 LETTER OF APPROVAL AND/OR AUTHORIZATION

9-23-75

FEDERAL AID PROJECT NO. [illegible]5055(1)

STATE PROJECT NO. [illegible]illamina Ave. - Main Street

COUNTY NAME: Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM: G.L. Green, Division Administrator, Salem, Oregon

PROGRAM NO.

ITEM NO. M-47

TO:

Mr. F. B. Klaboe
Administrator and State Highway Engineer
State of Oregon
Salem, Oregon

DATE PS&E APPROVED

DATE AUTHORIZATION EFFECTIVE: September 23, 1975

FEDERAL ROUTE NUMBER: Urban Route 5055

STATE ROUTE NUMBER: City Street

GENERAL LOCATION: City Street - Forest Grove

GENERAL DESCRIPTION OF WORK: Preliminary Engineering

RECEIVED
COUNTY & CITY SECTION
SEP 26 1975
☐ ENGR. ☐ COOR. ☐ BE ☐ AE ☐ HE
☑ UPE ☒ CE ☒ RE ☐ RPE ☐

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☒ LOCATION and design.
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY

CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

My program approval memorandum of September 23, 1975 approved this project for inclusion in the Federal-aid program.

As requested in Mr. Rulien's September 19, 1975 letter you are authorized to proceed with all phases of preliminary engineering necessary to obtain location/design approval at a total estimated cost of $4,000.00 - federal funds $3,120.00.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
9-23-75	C R Burghardt	for Division Administrator

FORM PR-1240 (REV. 8-71) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(FPM 21-1)

STATE HIGHWAY DEPARTMENT: Oregon

DATE: 9-23-75

BY (Signature): L.W.Rulien's August 7, 1975 letter

TITLE: Project Management Engineer

CLASS OF FEDERAL FUNDS
☐ RAI ☐ FAP ☒ PAU ☐ FAS ☐ OTHERS _____

~~HANDICK~~
ITEM NOS. 47 THRU _____

~~STANDARD~~
ITEM NOS. _____ THRU _____

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS **	OTHER IDENTIFICATION AND/OR REMARKS (State) Location	Work
C	M-5055(1)	0.19	50,000	39,000	Willamina Ave.-Main Street(Forest Grove) Section. Washington County-State of Oregon.	Preliminary Engineering, Grade, Drain, High type pavement, utility adjustments including preparatory work.

RECEIVED
COUNTY & CITY SECTION
SEP 26 1975
☐ LEGIS. ☐ COOR. ☐ OE ☐ AE ☐ UE
☐ MPE ☐ LE ☐ RE

REMARKS (Division)
C

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE: 9-23-75	SIGNATURE AND TITLE: C K Burghardt (G. L. Green, Division Administrator)

** Program approval ~~XXXX

Budget Bureau No. 41-R2067; A

U.S. D

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO B. O.

FORM PR-1 (REV. 4-61)

8-7-75

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

CARD 2 — REPORT NUMBER: 1 (19)(20) — PROJECT LOCATION (45 typewriter spaces): City St. Forest Grove (21)(69)

ADT — PRESENT: 1,700 — FUTURE: 2,900 (66) — YEAR: 95 (70)(71)(72) — REGION: 10 — STATE NAME: Oregon

CARD 3 — CHARACTER OF PROPOSED WORK (35 typewriter spaces): P.E., Gr. Dr. H.T. Pave., Illum. (25)(62) — NATL. FOREST (63)(68) — FH ROUTE NO. (69)(70) — SUPV. AGCY (69) — DA CLASSIF. (70) — DA AREA (71) — EMERG. YR. (72)(73) — PL. AUTH YR. (74)(75) — PROJECT NUMBER: PREFIX LETTER(S): M - (14)(23) — NUMBER: 5055 (7)

CARD 4 — CLASS OF FEDERAL FUNDS: Urban System — COUNTY NAME: Washington (194) — NAME OF URBAN AREA: Forest Grove (17-31) — ROUTE NO. U — FEDERAL-AID: 5055 (32) — STATE: City St. (36) — U.S. - -

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS
	(14-15)	(18)	41	42	43 — 46	53	(54) (58)	(59) (66)	(67) (76)			
5					PE		City St. Forest Grove	0.19	6,000	4,680		660 (City)
5					ROW							
5					CONST (CODE) 6201		"Willamina Ave.-Main St. (Forest Grove) Sec."	0.19	44,000	34,320	4,840	4,840 (City)
							PROJECT TOTALS	0.19	50,000	39,000	5,500	5,500

(116) (120)(134) (135)

CARD 1 — CODE 1 — PREPARED BY

REMARKS

PROGRAM APPROVAL DATES

SEP 23 1975

FHWA OREGON DIVISION

RECEIVED
COUNTY & CITY SECTION
SEP 26 1975
☐ SUBR. ☐ SUBR. ☐ UE ☐ AE ☐
☑ UPE ☐ RE ☐ RPE ☐

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

FORM PR-1 (REV. 4-61)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

8-7-75

PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
City St. Forest Grove	ADT	1,700	2,900	95	10	Oregon	41	W32	47

WORK (35 typewriter)	NATL. FOREST	FM ROUTE NO.	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST MI. DESIG.
T. Pave., Illum.								M -	5055	(1)	

Urban System

COUNTY NAME: Washington — CODE: 067

Forest Grove

ROUTE NO. U — FEDERAL-AID: 5055 — STATE: City St. — U.S.: - - — PROGRAM STAGE: ___ 1 OR X 2

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
		City St. Forest Grove	0.19	6,000	4,680		660 (City)	P.E. all phases, Gr. Dr. H.T. pave. 40' curbed street section & install illumination
OW								Utility adjustments required incl. prep. work
NST (DE) 01		"Willamina Ave.-Main St. (Forest Grove) Sec."	0.19	44,000	34,320	4,840	4,840 (City)	ROW-66' maximum Access Control-None Parking Restrictions-None.
		PROJECT TOTALS	0.19	50,000	39,000	5,500	5,500	

RECEIVED
COUNTY & CITY SECTION
SEP 26 1975
ENGR. CONSTR. UE AE
UPE RPE ME RPE

OVAL DATES
975
N DIVISION

REMARKS

-OVER-

WILLAMINA AVE.-MAIN ST. (FOREST GROVE) SECTION

PROJECT NO. M-5055(1)

Existing Facility:

Willamina Ave.: No existing roadway.
Main Street: 20 foot paved roadway with 6 foot gravel shoulders.

Adjacent Sections:

Willamina Ave.:
W. End: 40 foot curbed roadway section
E. End: Intersection with Main Street
Main Street:
S. End: 40 foot curbed roadway section
N. End: Intersection with Willamina Ave.

Project Data: The work under this project consists of the following:

(1) Preliminary engineering all phases.
(2) Construct 40 foot curbed roadway on Willamina Avenue and widen Main Street to a 40 foot curbed roadway which work consists of grade, drain, hightype pavement and installation of illumination.

NOTE: Portions of the preliminary engineering will be accomplished by the City of Forest Grove with review and contracting by State forces.

Additional Right of Way: None required.

System Action, Airports, Railroads, Water Developments, Historical and Recreational Areas: None involved.

FHPM 7-7-5

(a)

(b)

IM 50-1-70
Clearinghou

FHPM 7-7-2
be submitte

Urban Trans
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traffic flo
in planning

Data for P

Preli

Type Code

NOTE: Thi

gravel

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gina Avenue
roadway
ype pave-

be accom-
contracting

nts, Historical

FHPM 7-7-5 Requirements:

(a) Public Hearings - - ~~Not required under Oregon Action Plan.~~ will be offered

(b) ~~Location/Design~~ - ~~Not a factor in the development of this project.~~

IM 50-1-70 Requirements: Exempt from State and District 2 Clearinghouse A-95 reviews under working agreements.

FHPM 7-7-2 Requirements: Type of action classification will be submitted under separate action.

Urban Transportation Planning (PPM 50-9): Not applicable as the project will not result in an alteration of land use or traffic flow patterns that would require a significant change in planning completed or underway.

Data for PR-37:

Preliminary Engineering - - - - - - -	Field Work	$3,500
	P.S. & E. Preparation	2,500
	TOTAL	$6,000

Type Code 6201 - - - - - - - - - $44,000

NOTE: This project is in Congressional District No. 1.

September 23, 1975

City of Forest Grove
City Hall
Forest Grove, OR 97116

Attention: Ivan M. Burnett
City Recorder

MISC. CONTRACTS and
AGREEMENTS No. 5447

Gentlemen:

Attached for your records is a fully executed copy of an agreement covering the Willamina Avenue-Main Street Connector (Forest Grove) Section of FAU 5035.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Very truly yours,

C. V. Reed
COMMISSION SERVICES

fkm

Att.

cc Don Harwell (conf. agree. att.)

8948

Pro-6-2

September 19, 1975

TO: G. L. Green, Division Admin.
Federal Highway Administration

FROM: ORIGINAL SIGNED BY
L. M. RULIEN
L. M. Rulien
Project Management Engineer

SUBJECT: Project No. M-5065(1)
Williams Ave.-Main St. (Forest Grove)
Section

Program data for the subject project was submitted on August 7, 1975 with a request for authorization to proceed with all phases of the preliminary engineering work on the basis of the project assessment classification of a nonmajor action project. However your letter of September 17, 1975 did not concurr in the project assessment as constituting a nonmajor action project. We therefore request your authorization to proceed with all phases of preliminary engineering necessary to obtain location/design approval at an estimated total cost of $4,000 with federal funds of $3,120.

GL:dc

Form FHWA 121 (Rev. 5-73)

8948

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem, Oregon 97308

DATE: September 17, 1975

In reply refer to: 1041DA.1

SUBJECT: Oregon Project M-5055(1)
Willamina Avenue-Main Street Connecter
City of Forest Grove
Project Assessment

FROM : G. L. Green, Division Administrator

TO : Mr. F. B. Klaboe, Administrator & State Highway Engineer

The subject project assessment submitted with Mr. Rulien's September 3 letter has been reviewed.

Without a study to determine the changes in traffic patterns and traffic characteristics of the highway we are unable to judge the significance of the proposed improvement on the existing environment. Also because of the potential for controversy it is recommended that a public hearing be scheduled.

For the above reasons we are unable at this time to concur in your finding that the project constitutes a NON-MAJOR action.

for G. L. Green

cc:
OSHD (Potter)
OSHD (Laux)
OSHD (Reg 1, Craig)

RECEIVED
STATE HWY ENGR
SEP 18 '75
REFER TO
Rulien
FOR
Info | Inves | R/D | D/R | Sign | Act | File

cc Shirley Schroeder 9-18-75

NOTED
E. S. HUNTER

NOTED
R. L. SCHROEDER

RECEIVED
SEP 19 1975
Office of Assistant State Highway Engineer

8948

FAU

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: PRO 4

Region 1 - Milwaukie

September 8, 1975

FROM: JON ROSE Jon Rose
Region Federal Aid Engineer

SUBJECT: WILLAMINA-MAIN STREET AND
GALES WAY-"E" STREET PROJECTS
City of Forest Grove

TO: DICK UNREIN
Urban Engineer

Here are 3 copies each of the two agreements pertaining to the Willamina-Main Street and Gales Way-"E" Street projects in Forest Grove. These have been signed by the proper City officials and are accompanied by copies of the authorizing Council Resolutions.

The City's share of the Preliminary Engineering costs has been estimated at $660.00 for each project and the City has included two separate checks, each in that amount, as its advance deposit.

All these documents and checks are attached and are submitted for your further handling.

JR/lms
Attachment

RECEIVED
COUNTY & CITY SECTION
SEP 9 - 1975
☐ ENGR. ☐ COOR. ☐ CE ☐ AE ☐ UE
☐ UPE ☐ CE ☐ RE ☐ RPE ☐

City of Forest Grove

1924 COUNCIL STREET
P.O. Box 326
FOREST GROVE, OREGON 97116

August 29, 1975

Oregon State Highway Division
Region 1
P.O. Box 02157
Portland, OR 97202

Attn: Jon Rose, Regional Federal Aid Engineer

Enclosed are 3 executed agreements for each of the two Forest Grove FAU Projects ([redacted] and (Gales Way - "E" Street).

Also two checks, each for $660, are included for preliminary engineering on each project.

Sincerely,

CITY OF FOREST GROVE

By: John D. Burdett
Director of Public Works

JDB:vp

Enclosures

OE RE RME RCE FAE
TE RECEIVED RSM
UE SEP 08 1975 RSC
SO REGION 1 RBI
ENV LOC

RECEIVED
COUNTY & CITY SECTION
SEP 9 - 1975
☐ ENGR. ☐ COOR. ☐ OE ☐ AE ☐ UE
☐ UPE ☐ CE ☐ RE ☐ RPE ☐

STATE OF OREGON)
County of Washington) ss
City of Forest Grove)

I, I. M. Burnett, the duly appointed, qualified and acting City Recorder of the City of Forest Grove, Washington County, Oregon, do hereby certify that I have compared the attached copy of

with the original now on file in my office, of which I am the legal custodian, and the attached copy is a true, correct and complete copy of the whole thereof.

IN WITNESS whereof, I have hereunto set my hand and affixed my seal of the City of Forest Grove this 29th day of Aug 1975.

I. M. Burnett
City Recorder

SEAL

RESOLUTION NO. 860

RESOLUTION AUTHORIZING EXECUTION OF AGREEMENT WITH STATE OF OREGON, DEPARTMENT OF TRANSPORTATION, FOR URBAN SYSTEM PROJECT.

WHEREAS, The State of Oregon, acting through its Department of Transportation, Highway Division, has tendered to the City an Urban System Project agreement dated July 22, 1975, for the purpose of participating in the widening and improving of portions of Willamina Avenue and Main Street under the Urban System Program.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY OF FOREST GROVE AS FOLLOWS:

That the Mayor and City Manager are hereby authorized to execute the agreement dated July 22, 1975, entitled "Urban System Project Agreement" which relates to the widening and improving of portions of Willamina Avenue and Main Street under the Urban System Program.

PRESENTED AND PASSED This 12th day of August, 1975.

I. M. Burnett, Recorder

APPROVED By the Mayor this 12 th day of August, 1975.

Elden H. Cain, Mayor
"President of the Council in absence of the Mayor"

8948

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Region 1 - Milwaukie

August 26, 1975

FILE: ENV 2-1
Case Files

FROM: CRAIG P. MARKHAM
Regional Environmentalist

TO: GEORGE RAMAQUE'
Project Coordinator

SUBJECT: City of Forest Grove
FAU Projects
(Gales Way Channelization & Willamina Avenue Connector, Main Street Extension)

Enclosed are the Project Environmental Assessments for the subject projects submitted by Forest Grove. I have made some additions to the information they submitted.

Though the projects are located near rapidly developing areas, they do not appear to have direct effects on the development process. Right of way for Gales Way is insignificant (300 square feet) and under tentative agreement with the owner. The Willamina Avenue right of way is previously acquired and vacant. This of course raises the question of whether previously-acquired right of way should be considered under the impacts of a "new" project. Whichever the answer, the impacts in this case appear to be insignificant.

I therefore recommend "category III, non-major" classification, to be covered by assessment only, for these projects.

CM/b
att
cc: G. W. Hopkins
Don Schut w/att

THIS COPY FOR

PROJECT MANAGEMENT SECTION		
ROUTING	ACTION	INFO
P. M. ENGINEER		
PROJ. DEV. ENGR.		
OFFICE ENGR.		
CO. CITY-CITY		
FEDERAL AID		
INVENTORY-NEEDS		
MILEAGE CONTROL		
PROG. & SCHEDULE		
REMARKS:		

AUG 27 1975

8948

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Region 1 - Milwaukie

August 22, 1975

FILE: PRO 4
LOC 17

FROM: JON ROSE
Regional Federal Aid Engineer

SUBJECT: FAUS Projects
City of Forest Grove

TO: GEORGE N. HOPKINS
Program Development Engineer

Versteeg ✓
A. Olson
Terpin
Scott
Swenson
R. Olson
Trout

RECEIVED
SEP - 2 1975
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up ___/___/___
Other

REFERRED TO
Board, Read
Cole, Semple
Britson, Iverson
Hagen, Wolfe
Please Do File Copy Due
BY FINAL DESIGN ENGINEER

The City of Forest Grove presently has two projects being processed for FAUS funding; the Gales Way-E Street and the Willamina Avenue-Main Street projects. The City has submitted Project Environmental Assessments which were reviewed by Craig Markham and forwarded to the Environmental Section.

These projects have been processed somewhat out-of-sequence because of funding difficulties and revisions and were approved by the Transportation Commission back in May. The Gales Way job was enlarged and resubmitted recently and the attached information from the City indicates another minor change is wanted. If there is anything further required of the City at this time, please advise.

9/2/75
J.H. Versteeg

Please add paving of walkway/bikeway to contract plans as per City Letter of July 30, 1975.

JR/b
att

PROJECT MANAGEMENT SECTION

Routing	Action	Info
P.M. Engineer		
Proj. Dev. Engr.		
Design Engr.		
County-City	AUG 27 1975	
Federal Aid		
Inventory-Photog.		
Mileage Control		
Prog. & Schedule		
Remarks:		

City of Forest Grove

1924 COUNCIL STREET
P.O. Box 326
FOREST GROVE, OREGON 97116

July 30, 1975

OE RE RME RCE FAE
TE RECEIVED RSM
UE AUG 01 1975 RSC
SO REGION 1 RBI
LOC

Jon Rose
Federal Aid Engineer
Oregon State Highway Division
P.O. Box 02157
Portland, OR 97303

Dear Jon:

Enclosed are the completed Project Environmental Assessment forms for the two F.A.U. projects (Willamina Avenue - Main Street Connector and Gales Way - "E" Street Channelization) that have been approved.

We would like to add paving of the walkway/bikeway plan for the Gales Way - "E" Street project as we discussed previously by phone. In our original submittal this was to be a gravelled walkway/bikeway combination. The city bikeway funds obtained from state gas tax revenues will be used to match the federal-aid funds, providing that the cost of the bikeway facility can be separately accounted for.

Sincerely,

CITY OF FOREST GROVE

Donald E. Schut

By: Donald E. Schut
Assistant City Engineer

DES:vp

Enclosures

8748

PRO 6-2

August 7, 1975

TO G. L. Green, Division Engineer
Federal Highway Administration

FROM L. W. Rullen
Project Management Engineer

SUBJECT Program Data Submission
Project No. M-[illegible](1)

We are submitting program data for one project Item No. 47, Project No. M-[illegible](1), "Williamina Ave.-Main St. (Forest Grove) Section", which we desire to have included in the Federal-Aid Urban System Highway Program.

This project has been originated by local officials and concurred in by the Oregon Transportation Commission and the State Highway Division.

We further request concurrent with approval of the program, authorization be granted with all phases of preliminary engineering by City of Forest Grove and State forces necessary to obtain P.E. & E. approval at an estimated cost of $6,000 with Federal funds of $4,000.

Enclosure
CL:bz

Budget Bureau No. 41-R2067

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO F.O.

FORM PR-1 (REV. 4-61)

8-7-75

U.S.

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

CARD	REPORT NUMBER	PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME
2	1	City St. Forest Grove	ADT	1,700	2,900	95	10	Oregon

CARD	CHARACTER OF PROPOSED WORK (35 typewriter spaces)	NATL. FOREST	FH ROUTE NO.	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER
3	P.E., Gr. Dr. H.T. Pave., Illum.								M -	5055

CARD	CLASS OF FEDERAL FUNDS	COUNTY NAME	COD
4	Urban System	Washington	05

NAME OF URBAN AREA	ROUTE NO.	FEDERAL-AID	STATE	U.S.
Forest Grove	U	5055	City St.	- -

CARD	LINE NO.	CHANGE CODE	PROJECT COUE	WORK CLASS	WORK TYPE	STEP	TERMINI ("Fu" description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS
5					PE		City St. Forest Grove	0.19	6,000	4,680	660	660 (City)
5					ROW							
5					CONST (CODE) 6201		"Willamina Ave.-Main St. (Forest Grove) Sec."	0.19	44,000	34,320	4,840	4,840 (City)
							PROJECT TOTALS	0.19	50,000	39,000	5,500	5,500

CARD	CODE	PREPARED BY
1	1	

		PROGRAM APPROVAL DATES	REMARKS
1	14		

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

FORM PR-1 (REV. 4-61)

8-7-75

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

PROJECT LOCATION (45 typewriter spaces): City St. Forest Grove

ADT: PRESENT 1,700 | FUTURE 2,900 | YEAR 95

REGION: 10

STATE NAME: Oregon | STATE CODE: 41 | APPN CODE: W32 | ITEM NO.: 47

WORK (35 typewriter spaces): Pave., Illum.

NATL. FOREST | FH ROUTE NO. | SUPV DSTCT | DA CLASSIF. | DA AREA | EMERG. YR. | PL. AUTH YR

PROJECT NUMBER: PREFIX LETTER(S): M - | NUMBER: 5055 | SEQ. NO.: (1)

If Projects Only: POST MI. | DESIG.

Urban System

COUNTY NAME: Washington | CODE: 067

Forest Grove

ROUTE NO.: U | FEDERAL-AID: 5055 | STATE: City St. | U.S.: - -

PROGRAM STAGE: [ ] 1 OR [X] 2

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
		City St. Forest Grove	0.19	6,000	4,680	660	660 (City)	P.E. all phases, Gr. Dr. H.T. pave. 40' curbed street section & install illumination
W								Utility adjustments required incl. prep. work
IST		"Willamina Ave.-Main St. (Forest Grove) Sec."	0.19	44,000	34,320	4,840	4,840 (City)	ROW-66' maximum Access Control-None Parking Restrictions-None.
		PROJECT TOTALS	0.19	50,000	39,000	5,500	5,500	

AL DATES

REMARKS

-OVER-

WILLAMINA AVE.-MAIN ST. (FOREST GROVE) SECTION

PROJECT NO. M-5055(1)

Existing Facility:

Willamina Ave.: No existing roadway.
Main Street: 20 foot paved roadway with 6 foot gravel shoulders.

Adjacent Sections:

Willamina Ave.:
W. End: 40 foot curbed roadway section
E. End: Intersection with Main Street
Main Street:
S. End: 40 foot curbed roadway section
N. End: Intersection with Willamina Ave.

Project Data: The work under this project consists of the following:

(1) Preliminary engineering all phases.
(2) Construct 40 foot curbed roadway on Willamina Avenue and widen Main Street to a 40 foot curbed roadway which work consists of grade, drain, hightype pavement and installation of illumination.

NOTE: Portions of the preliminary engineering will be accomplished by the City of Forest Grove with review and contracting by State forces.

Additional Right of Way: None required.

System Action, Airports, Railroads, Water Developments, Historical and Recreational Areas: None involved.

FHPM 7-7-5 Requirements:

(a) Public Hearings - - Not required under Oregon Action Plan.

(b) Location/Design - - Not a factor in the development of this project.

IM 50-1-70 Requirements: Exempt from State and District 2 Clearinghouse A-95 reviews under working agreements.

FHPM 7-7-2 Requirements: Type of action classification will be submitted under separate action.

Urban Transportation Planning (PPM 50-9): Not applicable as the project will not result in an alteration of land use or traffic flow patterns that would require a significant change in planning completed or underway.

Data for PR-37:

Preliminary Engineering - - - - - - -	Field Work	$3,500
	P.S. & E. Preparation	2,500
	TOTAL	$6,000

Type Code 6201 - - - - - - - - $44,000

NOTE: This project is in Congressional District No. 1.

8948

Salem, Oregon

July 14, 1975

Mr. D. E. Swan
Federal Aid Engineer
Project Management Section

Richard Unrein
Urban Engineer
County-City Unit

Urban System Project Programming Request

City: Forest Grove

Section: Willamina Avenue-Main Street (Forest Grove) Connector, FAU 5055 0.19 mile

Proposed Work: All phases of preliminary engineering necessary to prepare project for contracting. City of Forest Grove will perform field phase of preliminary engineering necessary to formulate preliminary design plans and specifications. State will review and prepare final plans and specifications.

Costs:

	Total	Federal	State	City
*Preliminary Engineering:	$ 6,000	$ 4,680	$ 660	$ 660
Construction:	($44,000)	($34,320)	($4,840)	($4,840)
Total	$50,000	$38,000	$5,500	$5,500

*Field--$3,500 P.S. & E.--$2,500

State Clearinghouse Approval: Exempt per 4/28/70 working agreement.

District 2 Clearinghouse Approval: Exempt per 10/16/70 working agreement.

Approved by Transportation Commission: 5/30/75

See attached project application for additional project information.

RU:gch

Attachment

☑ ENGR. ☐ ASST. ☐ OE ☐ AE ☐ UE
☐ UPE ☐ CE ☑ RE ☐ RPE ☐

8948

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

DATE May 20, 1975

TO Oregon ~~State Highway~~ Transportation Commission

FROM F. B. Klaboe
State Highway Engineer

SUBJECT Federal Aid Urban System
Project Requests

AGENDA
MAY 30 1975
H C

Six requests for approval of Urban System projects will be presented for your consideration at the May 30 meeting.

The City of Corvallis is requesting a $265,000 project to four-lane a 0.4 mile segment of Seavy Avenue.

Two short street improvements totalling $110,000 are being requested by the City of Forest Grove.

The City of Portland is requesting two projects on North Columbia Boulevard. One is a $200,000 preliminary engineering project covering a 1.5-mile section. The other project is a $900,000 request to improve a 0.5-mile section of North Columbia Boulevard.

The sixth project request is for the development of exclusive high-occupancy vehicle lanes on the Banfield Freeway. This request requires a transfer of Urban System funds to Urban Extension funds. Local officials have approved the transfer.

Federal Urban System funds for these projects are estimated at $2,051,500, with the State providing approximately $416,250 in match funds and approximately $162,250 being contributed by the involved local units of government.

These projects have been investigated and are eligible for funding under the Federal Aid Highway program. I recommend

your approval of these projects and request authority to sign project agreements for and on your behalf.

Atts.

bc: C. W. Head
A. E. Johnson
E. S. Hunter
L. W. Rulien
V. E. Skoog
Ed Hardt
Gary Sund
George M. Baldwin
R. L. Schroeder
H. S. Coulter
D. N. Harwell
R. N. Bothman
C. O. Fredrickson
Jack Graham

RU:scr srb

NOTED
C. W. HEAD

CITY OF FOREST GROVE
Proposed Urban System Project

Willamina Avenue-Main Street Connector (Forest Grove) Section
FAU 5055
Grading, paving, illumination; 0.19 mile; $50,000

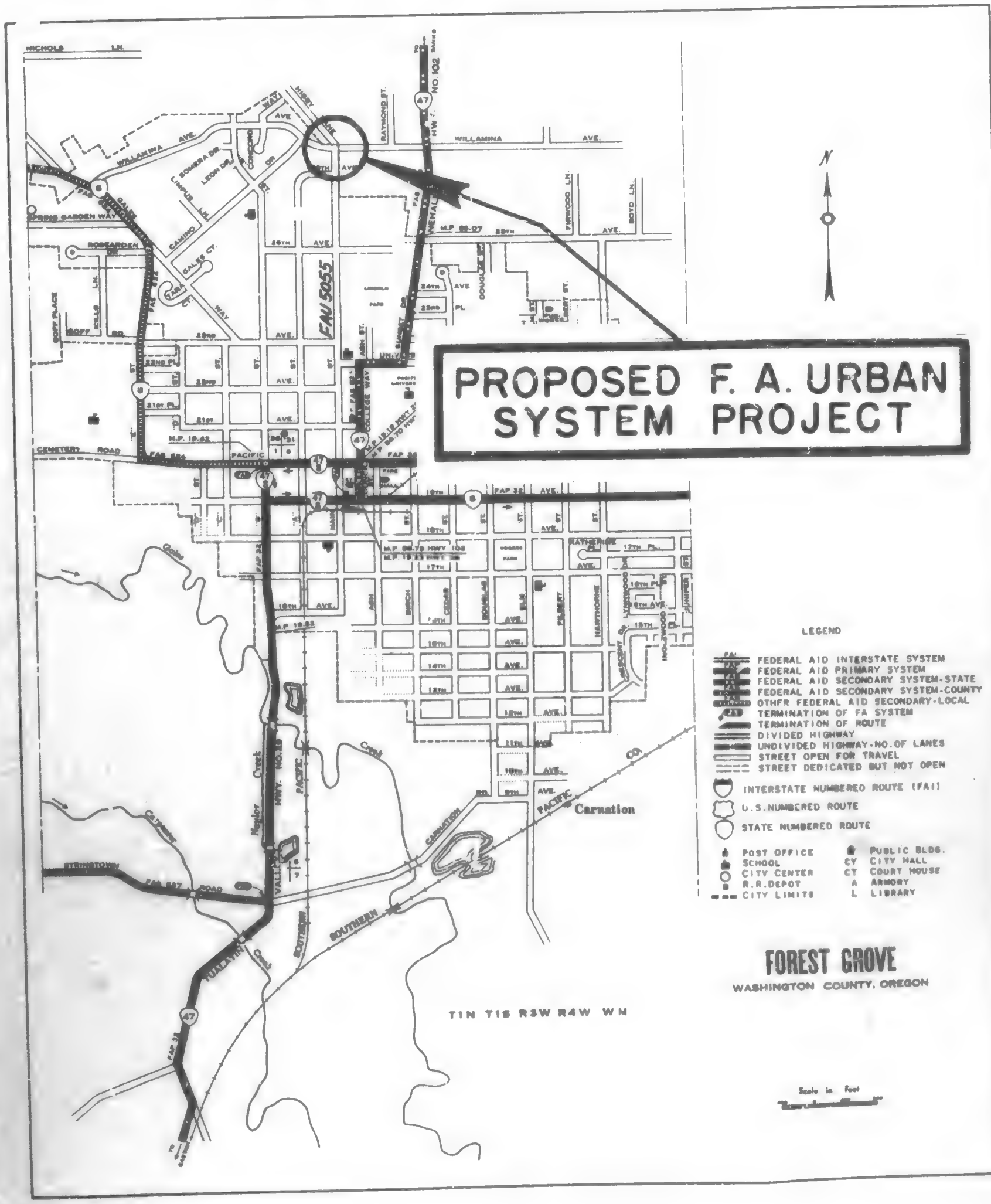
This project entails all the work and costs to construct the Willamina Avenue connection to Main Street and to reconstruct and widen approximately 600 feet of Main Street.

Perform all necessary engineering.

Construct a 40-foot, curb-to-curb street section.

Provide necessary illumination.

Provide necessary striping.


PROPOSED F. A. URBAN SYSTEM PROJECT
FAU 5055
N
LEGEND
FEDERAL AID INTERSTATE SYSTEM
FEDERAL AID PRIMARY SYSTEM
FEDERAL AID SECONDARY SYSTEM-STATE
FEDERAL AID SECONDARY SYSTEM-COUNTY
OTHER FEDERAL AID SECONDARY-LOCAL
TERMINATION OF FA SYSTEM
TERMINATION OF ROUTE
DIVIDED HIGHWAY
UNDIVIDED HIGHWAY-NO. OF LANES
STREET OPEN FOR TRAVEL
STREET DEDICATED BUT NOT OPEN
INTERSTATE NUMBERED ROUTE (FAI)
U.S. NUMBERED ROUTE
STATE NUMBERED ROUTE
POST OFFICE
SCHOOL
CITY CENTER
R.R. DEPOT
CITY LIMITS
PUBLIC BLDG.
CH CITY HALL
CT COURT HOUSE
A ARMORY
L LIBRARY
FOREST GROVE
WASHINGTON COUNTY, OREGON
T1N T1S R3W R4W W M
Scale in Feet
Carnation
Gales Creek
Dairy Creek
Tualatin Creek
Naylor Creek
Council Creek
Southern Pacific
Pacific
College Way
Willamina Ave.
Pacific Ave.
Cemetery Road
Spring Garden Way
Rosegarden Ln.
Nichols Ln.
Boyd Ln.
Douglas St.
Ash St.
Birch St.
Cedar St.
Douglas St.
Elm St.
Filbert St.
Hawthorne St.
Juniper St.
Laurelwood Dr.
Raymond St.
Sunset Dr.
Valley View Dr.
Stringtown
Carnation
Hwy. No. 47
Hwy. No. 102
FAP 33
FAP 884
FAS 887
FAU 5055

8948

FORM 81-734-3035

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: 37-1467

Salem, Oregon
March 14, 1975

FROM: Phillip O. Stearns
REGION FEDERAL AID ENGINEER

SUBJECT: FAU Project Request
City of Forest Grove

TO: L. W. Rulien
PROJECT MANAGEMENT ENGINEER

Enclosed are six copies of a Project Request for street improvement in Forest Grove.

The final FAU system maps are being prepared by the City, and approval of the Project Priority list will be made at the next County Commission meeting.

The Project Request is being submitted at this time for review to be ready to go when final approval is received for their FAU system.

Region 2 Office recommends the project for approval.

POS/elk
Enc.

3-21-75
Phil says City wants a Striped Left turn pocket at intersection.

Plans adequate
Est. is reasonable
DLL

PROJECT MANAGEMENT SECTION		
ROUTING	ACTION	INFO
P.M. ENGINEER		
PROJ. DEVELOPMENT		
OFFICE ENGR.		
COUNTY-CITY	MAR 17 1975	
FEDERAL AID		
INVENTORY-NEED		
MILEAGE CONSOL		
PROG. & SCHEDULE		
REMARKS:		

Rev. 5/28/74 8948

FEDERAL AID URBAN SYSTEM PROJECT REQUEST

NOTE: This form is intended to collect general information for proposed projects so that the State and Federal Highway Administration will have a better understanding of the requested project. Please use the footnote area to answer any ambiguous questions or to explain any unusual conditions.

Date March 10, 1975

Applicant Agency City of Forest Grove

Federal Aid System Route No. _____ Route Name _____

Project Name Willamina Ave. Connector & Main St. Extension

Project Length 935' Project Location (Attached sketch map)

Project Description Construct 40' wide street to connect existing sections of Willamina Ave. Reconstruct and widen Main Street to Willamina Ave. Project includes providing storm drainage facilities and concrete curbs. This project will provide a vital east-west connection across the north side of the city.

Average Daily Traffic _____ Design Speed 25

Complete Applicable Sections:

I. ROADWAY DATA

1. Existing Roadway: (Attach sketch)

Width 20 Travel Lanes 2 - 10' Shoulders 6' gravel

Medians none Parking none

Sidewalks none

Other _____

2. Desired Roadway Cross Section: (Attach sketch)

Width 40 Travel Lanes 2 - 12' Shoulders none

Medians none Parking 8

Curbed yes Length Curb Radii 20'

Sidewalk/Bikeway none

Other Turn lanes to be striped in on Main St. and Willamina Ave. at intersection.

FOOTNOTES: Willamina Ave. connector is new construction. Existing Main Street pavement is narrow and in poor condition.

Description of Proposed Roadway Work Grade and pave 390' (±) of Willamina Ave. Widen and reconstruct 595' (±) of Main St.

II. RIGHT-OF-WAY DATA

1. Existing Right-of-Way:

General Width 66' Minimum 66' Maximum 66'

2. Will Additional Right-of-Way Be Needed? No Explain _____

3. Will cost of additional right-of-way be included in project or will applicant acquire without cost to project? _____

4. Will applicant acquire right-of-way and have State review negotiations?
Yes _____ No _____

5. Should State negotiate and acquire right-of-way in behalf of applicant?

6. Should State prepare options? Yes _____ No _____

7. Is a public hearing necessary? No
(NOTE: If additional right-of-way is needed, or the improvement would have an adverse effect upon abutting real property, or if the layout or function of the facility or connecting streets or roads would be changed, an opportunity for a hearing must be afforded.)

8. Will there be any persons displaced from their homes, farms or business?
No If so, explain _____
(NOTE: No property owner shall be required to move from his home, farm, or business without at least 90 days' written notice prior to the intended vacation date.)

9. Will this project affect any park or recreation facility? Yes
If so, explain It will improve access to Lincoln Park.

III. TRAFFIC CONTROL DATA

1. Existing Signalization: None

2. Proposed Signalization:

Location None
Type _____
Phases _____
Type of Suspension _____

Interconnected _____
Other _____

FOOTNOTES: _____

3. Permanent Signing:

Include in project or by applicant? _____

4. Permanent Striping:

Include in project or by applicant? _____

IV. ILLUMINATION DATA

1. Present Illumination and Location: None existing on Willamina Ave.

2. Proposed Illumination:

Location Approximately every 200'. Mount on existing poles.
Type 175 watt Mercury with 400 watt at the intersection.

V. STRUCTURE DATA

1. Existing Structure:

Location None
Type _____

Size _____
To Remain in Place? _____

2. Proposed Structure:

Location None

Is a particular type of structure and design desired? _____

Approximate size of proposed structure _____

Are sidewalk/bikeways desired? _____

Are any utilities to be attached to structure?_____

FOOTNOTES:_____

Are provisions for illumination desired?_____

Are there any unusual or complicating conditions?_____

VI. RAILROAD DATA

1. Are there any railroad crossings?__No__ Location_____

:

Type of existing crossing_____

Existing crossing protection_____

Name of Railroad_____

Number of tracks: Mainline_____ Siding_____ Total_____

Angle of Intersection_____

Sight distance: (Direction)_____ Distance_____

(Direction)_____ Distance_____

Number of Trains: Passenger_____ Speed_____

Freight_____ Speed_____

2. Will existing railroad crossing be altered?_____

VII. GENERAL INFORMATION

1. Other work or conditions not covered by proceeding sections_____

2. Applicant's Estimate of Cost for Requested Project:

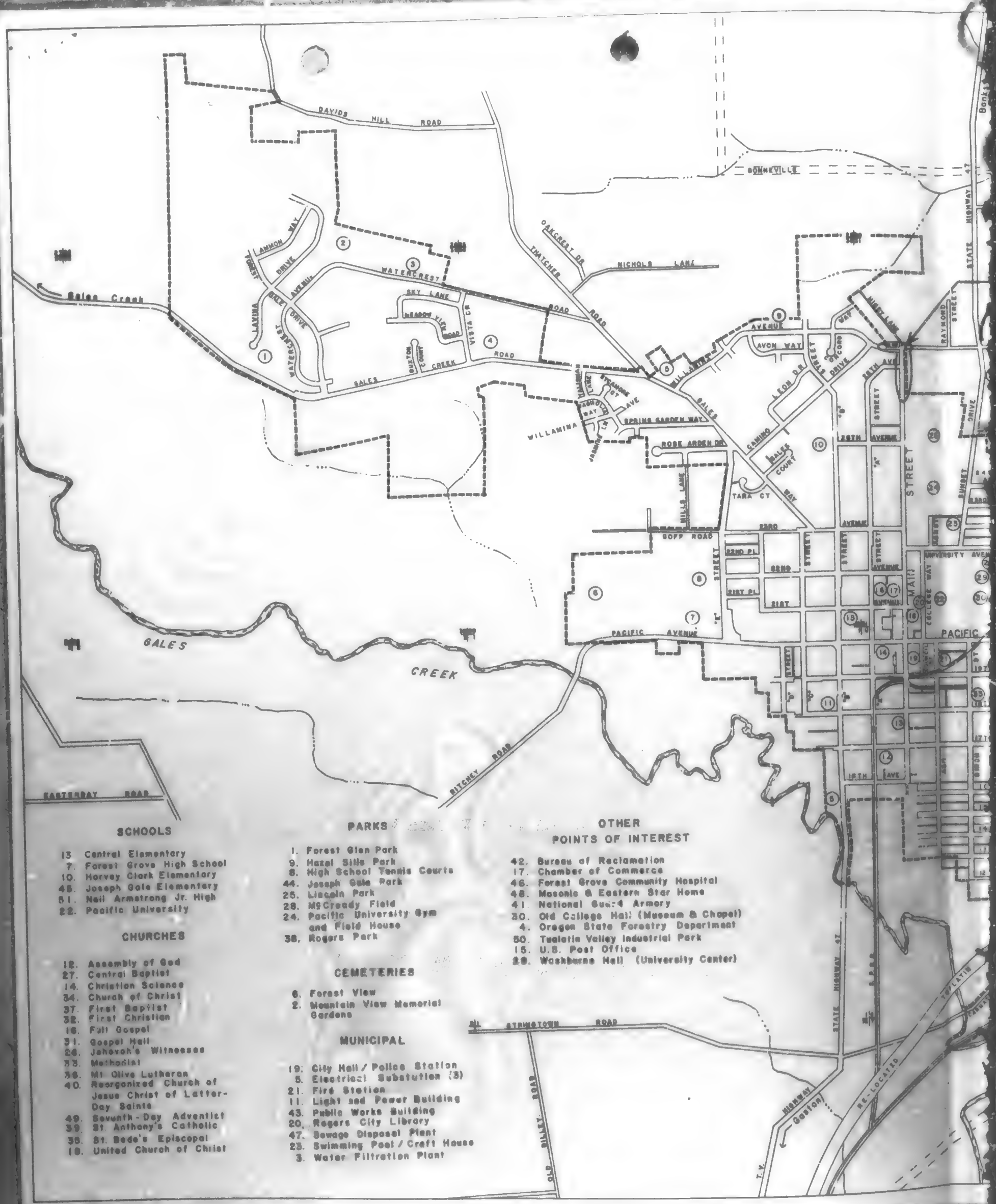
Roadway Work	$ 41,841.00
Right-of-Way Costs (If participating)	none
Traffic Control	
Illumination	400.00
Strudtures	none
Railroad	none
Other	none
Preliminary Engineering	6,276.00
PROJECT TOTAL	$ 48,517.00

FOOTNOTES:_____

THIS APPLICATION IS AN OFFICIAL REQUEST FROM:

City of Forest Grove
By Edward A. Cain
By Carlton E. Scharlemann

_____ County
By_____
By_____
By_____



SCHOOLS

13. Central Elementary
7. Forest Grove High School
10. Harvey Clark Elementary
45. Joseph Gale Elementary
51. Neil Armstrong Jr. High
22. Pacific University

CHURCHES

12. Assembly of God
27. Central Baptist
14. Christian Science
34. Church of Christ
37. First Baptist
32. First Christian
16. Full Gospel
31. Gospel Hall
26. Jehovah's Witnesses
33. Methodist
36. Mt Olive Lutheran
40. Reorganized Church of Jesus Christ of Latter-Day Saints
49. Seventh-Day Adventist
39. St. Anthony's Catholic
35. St. Bede's Episcopal
18. United Church of Christ

PARKS

1. Forest Glen Park
9. Hazel Sills Park
8. High School Tennis Courts
44. Joseph Gale Park
25. Lincoln Park
28. McCready Field
24. Pacific University Gym and Field House
38. Rogers Park

CEMETERIES

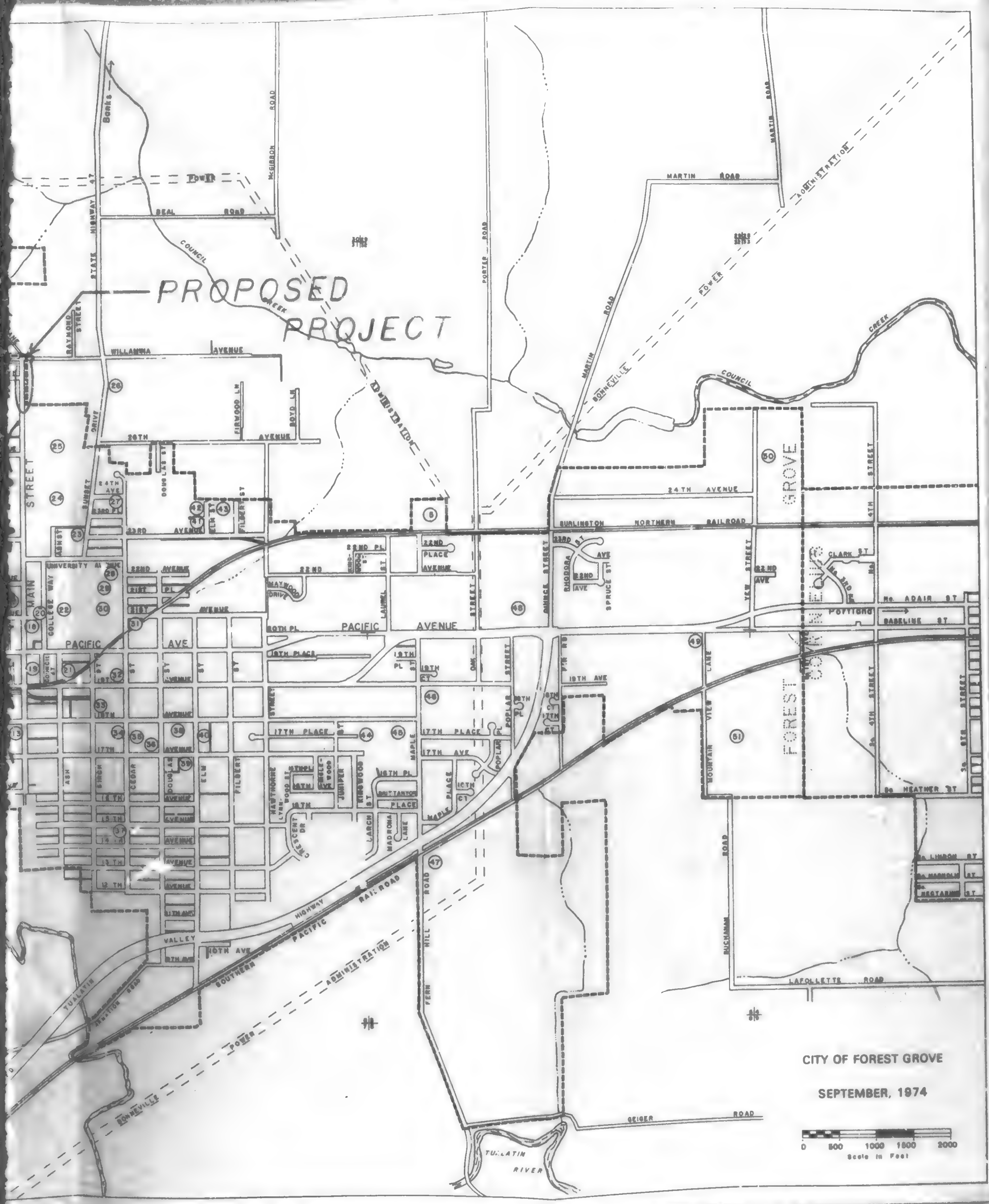
6. Forest View
2. Mountain View Memorial Gardens

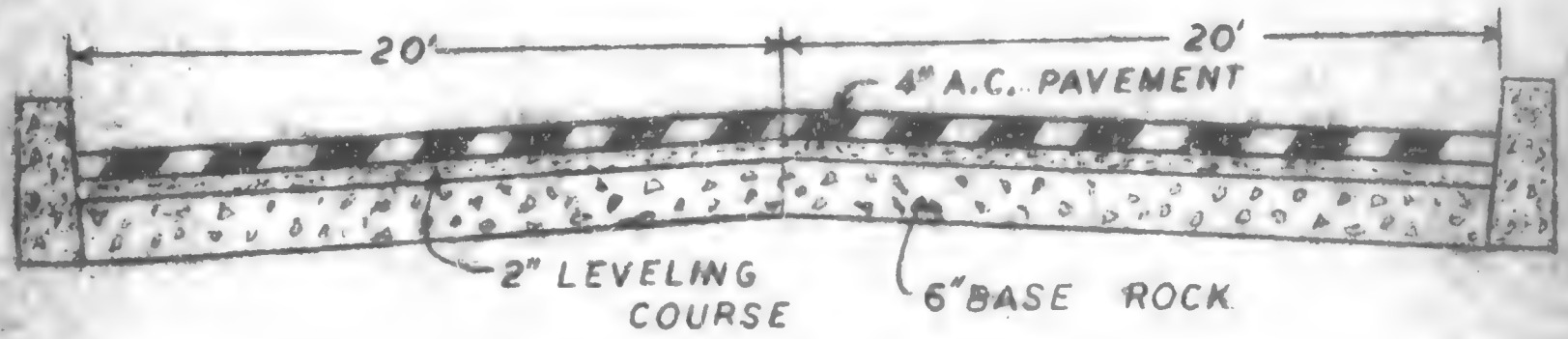
MUNICIPAL

19. City Hall / Police Station
5. Electrical Substation (3)
21. Fire Station
11. Light and Power Building
43. Public Works Building
20. Rogers City Library
47. Sewage Disposal Plant
23. Swimming Pool / Craft House
3. Water Filtration Plant

OTHER POINTS OF INTEREST

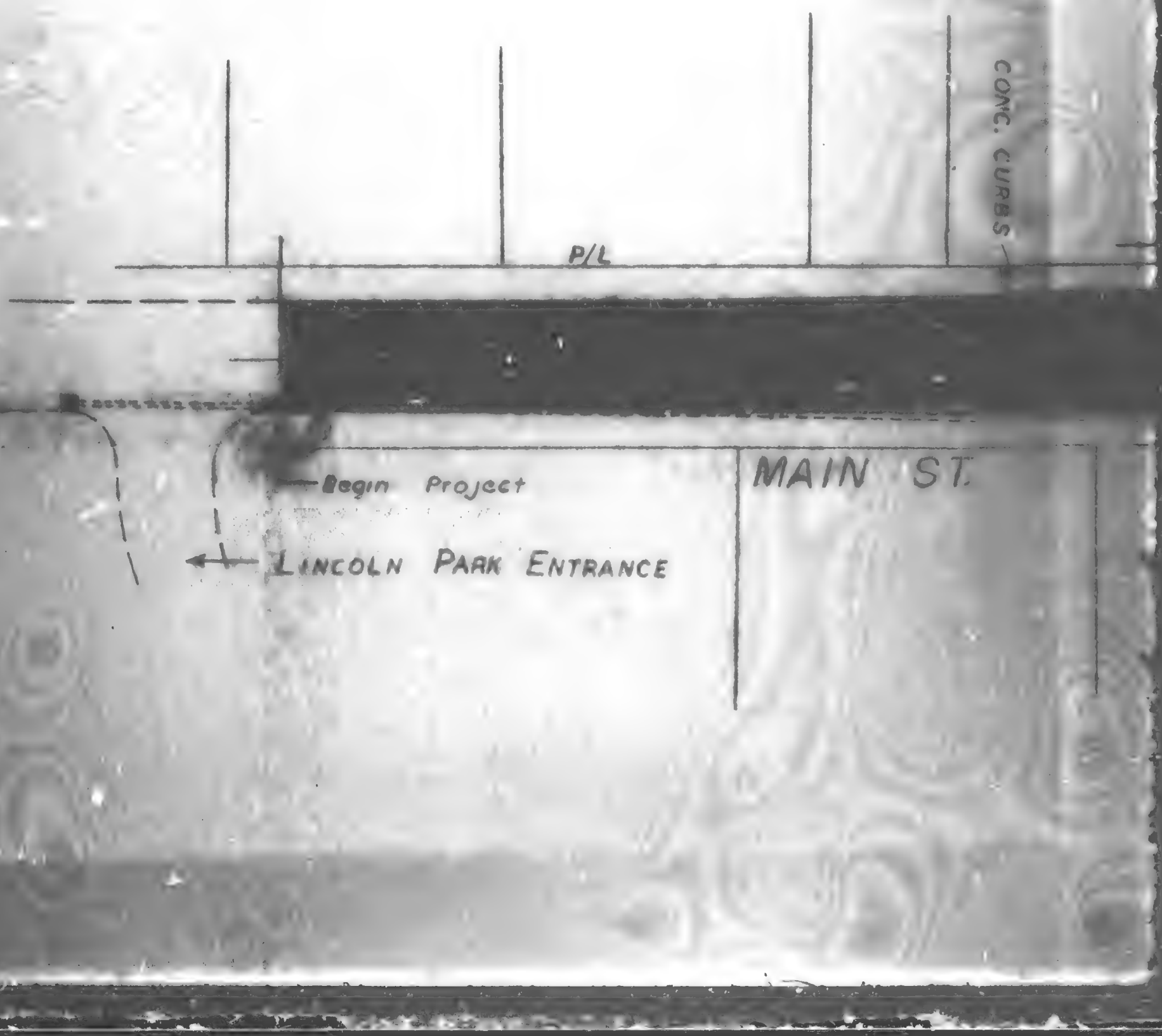
42. Bureau of Reclamation
17. Chamber of Commerce
46. Forest Grove Community Hospital
48. Masonic & Eastern Star Home
41. National Guard Armory
30. Old College Hall (Museum & Chapel)
4. Oregon State Forestry Department
50. Tualatin Valley Industrial Park
15. U.S. Post Office
29. Washburne Hall (University Center)


PROPOSED PROJECT
POWER
COUNCIL CREEK
BONNEVILLE ADMINISTRATION
POWER
BANKS
McGIBBON ROAD
PORTER ROAD
MARTIN ROAD
REAL ROAD
STATE HIGHWAY 47
RAYMOND STREET
WILLAMINA AVENUE
19TH AVENUE
24TH AVENUE
22ND AVENUE
PACIFIC AVENUE
BURLINGTON NORTHERN RAILROAD
MAIN STREET
SUNSET DRIVE
ASH STREET
CEDAR STREET
DOUGLAS AVENUE
ELM STREET
FILBERT STREET
MAPLE PLACE
LARCH STREET
JUNIPER STREET
ORENCE STREET
YEW STREET
SPRUCE ST
RHODORA AVE
POTTYGRO
BASELINE ST
No. ADAIR ST
CLARK ST
FOREST GROVE
MOUNTAIN VIEW LANE
HEATHER ST
LINDEN ST
MAGNOLIA ST
NECTARINE ST
BUCHANAN ROAD
LAFOLLETTE ROAD
GEIGER ROAD
FERN HILL ROAD
TUALATIN VALLEY IRRIGATION DISTRICT
SOUTHERN PACIFIC RAIL ROAD HIGHWAY
TUALATIN RIVER
CITY OF FOREST GROVE
SEPTEMBER, 1974
0 500 1000 1500 2000
Scale in Feet



TYPICAL CROSS SECTION
(NO SCALE)

Soil Bearing $R_{95}=3$



PROJECT LIMITS

WILLAMINA AVE.

CONC. CURBS

P/L

N

28TH AVE.

CONC. CURBS

PROJECT LIMITS

HIGB

P/L

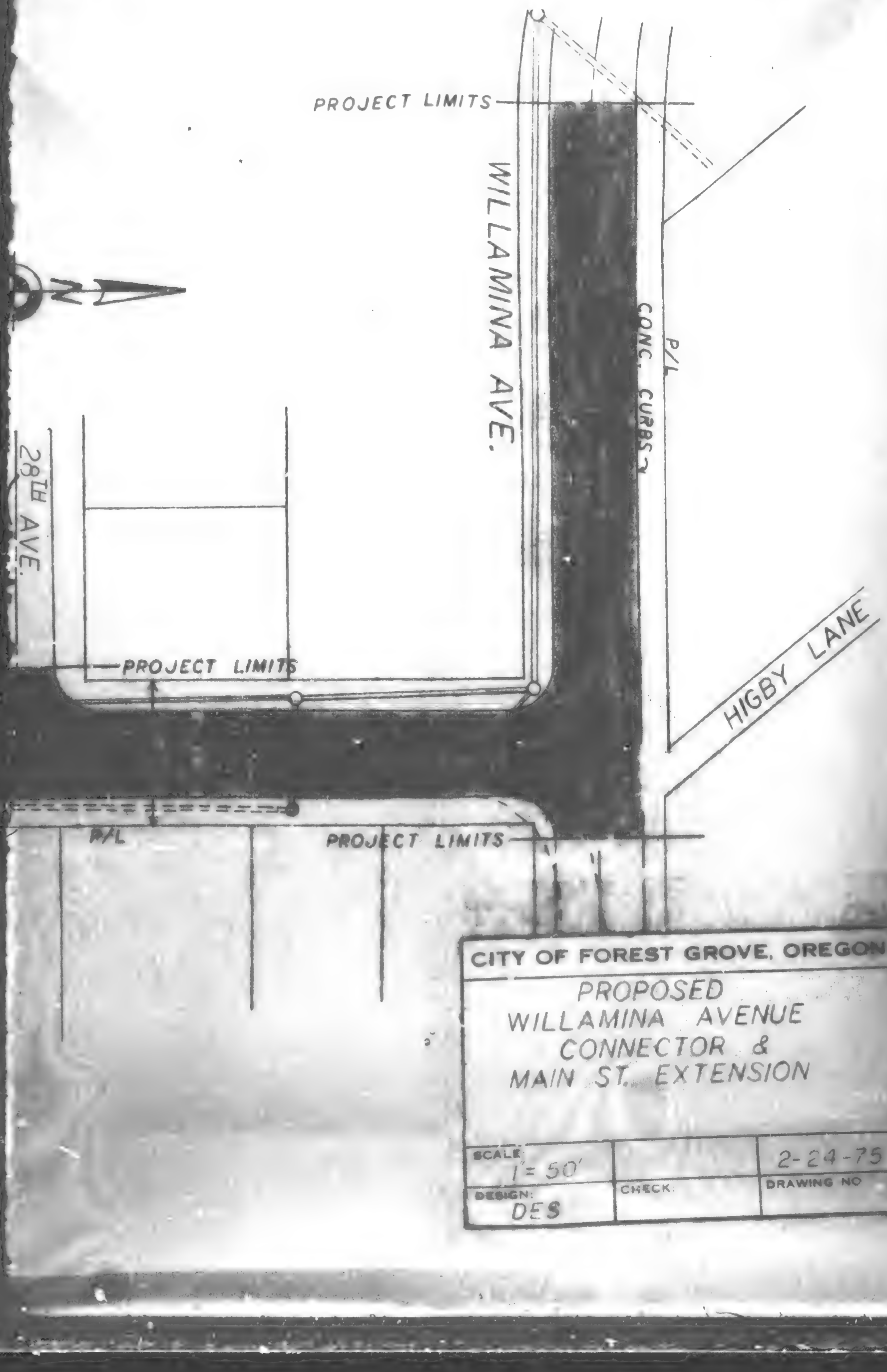
PROJECT LIMITS

EXISTING PAVEMENT

CITY OF FOREST GROVE,

PROPOSED
WILLAMINA AVEN
CONNECTOR &
MAIN ST. EXTENSI

SCALE: 1"= 50'	
DESIGN. DES	CHECK.



CITY OF FOREST GROVE, OREGON

PROPOSED
WILLAMINA AVENUE
CONNECTOR &
MAIN ST. EXTENSION

SCALE: 1" = 50'		2-24-75
DESIGN: DES	CHECK:	DRAWING NO

.1979 S. Unit, Asteria - 8949
.Camp Rilea Sec. 101.
.(Gr, pave, str, & sign.) #8

C+A 6928 6-1-79

C+A 6929 3-15-79, 7-27-79

RR 976 5-16-79
4-10-79

8949

CCM 5 - 10,285, 9705, 8949

Ben Kleinschmit
Contract Claims Coordinator

October 21, 1986

George Ball
Assistant Director

Litigation Request for Discovery
Complaint No. CC86-2148

As requested in your memo of October 17, 1986, we are enclosing documents concerning the following three contracts:

Contract No. 10,285
Nacon Corporation
Yaquina Beach Junction Section
Oregon Coast Highway
Clatsop County

Certified copy of the Bidder's proposal

Certified copy of Contract No. 10,285

Xerox copies of the minutes of the Commission meeting of July 22, 1986, pages 6794, 6795, 6805-6810, and 6819-6821 concerning the award of the contract.

Contract No. 9705
Hamilton Construction Co.
(Oregon)
Chenler O'Ning Section
Oregon Coast Highway
Tillamook County

Certified copy of the Bidder's proposal

Certified copy of Contract No. 9705

Xerox copies of the minutes of the Commission meeting of September 25, 1985, pages 5261, 5264, 5279-5282 and 5287-5289 concerning the award of the contract.

Contract No. 8940
Henry Haldorson Co., JV
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

Certified copy of the Bidder's proposal

Certified copy of Contract No. 8940

Xerox copies of the minutes of the Commission meeting of June 19, 1979, pages 3084, 3085, 3103-3105, and 3129-3131 concerning the award of the contract.

Our written correspondence would be filed in the General Files, and you have asked Caroline Philp for this information.

PMP:alp
Enclosures

STATE OF OREGON
Highway Construction

INTEROFFICE MEMO

378-6318 CLAIM FILE #10285
CONFIDENTIAL

TO: Caroline Philp
General Files

DATE: October 17, 1986

FROM: Ron Kleinschmit RK
Contract Claims Coordinator

3 contracts

SUBJECT: Canon Beach Junction
Contract No. 10285 (C08949 and C09706)
Hwy. 26/101
Clatson County
Mocon vs State of Oregon
Litigation Request for Discovery
Complaint No. CC86-2168

This memo is to be treated as confidential, prepared at the request and direction of William Cloran, Assistant Attorney General for the State of Oregon, representing the Highway Division in this matter. No copies, except those listed below as addressees, should be made or distributed without conferring with Mr. Cloran. This memo should be filed in a separate file in the contract records, marked as Litigation CC86-2168 File.

The contractor on the above project, Mocon, Inc., has filed litigation related to a construction claim. Attached is a copy of a formal request for discovery related to that litigation. Please read the request carefully. Failure of the Division to produce the documents in a timely fashion is usually detrimental to our position.

Please assemble the documents in your possession, pack them in standard storage boxes (large archive boxes are okay for rolls of X-sections, maps, etc.), prepare an inventory of the included information suitable for indexing and return receipt acknowledgement. Clearly mark each carton as to originator, number the cartons, and make arrangements to have them shipped or delivered to the Construction Office in care of myself.

If the files in your possession may not be removed from their area due to Administrative Rule, please prepare the same inventory and submit to me. It is preferred that machine copies be sent with the inventory rather than scheduling a discovery at your site. Items 8 and 9 may require retrieval of information from Archives. These contracts (Wheeler O'Xing, C09706 and S. Unit Astoria, Camp Rilea, C08949) are unusual to this contract; however, they are important.

Special attention should be given to Items 4, 14, 16, 17, 18 and 21. These items are very general in nature. If you have any manuals or design criterial information that you use in relation to the design or construction of embankments (exclusive of the contract documents or con-

struction manual), please direct my attention to these. It is important to make a good faith effort to identify these documents and arrange for their review, if possible. If you are aware of any document or index that would identify information relating to Items 8, 9 or 16 that I have not covered, please let me know.

The date for delivery to this office is by October 24, 1986, to allow the Division's attorney time to review the documents as to discoverability. If for any reason you cannot make this date, please notify me immediately.

If you have no documents in your possession or under the control of your Section, simply note same on a copy of this letter and return to me. Particular effort should be made to locate all forms of diaries and telephone logs. These are often overlooked, as they may not be job specific, but contain important information. Since this is a claim relating to earthwork, all relative data as to geologic and/or subsurface conditions, as well as pre-bid conversations, are very important.

This is an active project and production of the contract pay notes and other active information is undoubtedly difficult at this juncture. Please let me know of any problems you will encounter at your earliest convenience. Thank your for your assistance. Every effort will be made to return the documents to you in a timely fashion.

RK:mk

Attach.

cc: With Request Attached:

Ken Karnosh	Roger Gebauer
Bruce Walton	Herm Mitzel, Materials
Carol Lopez	Ed Johnsen, Geotech
Jan Henry, Contract Acct.	Ken Husby, Region 2 Engineer
Fran Neavoll, Comm. Services	D. O. Christensen, Road Design
Walter Hart, Bridge Design	Ted Litchfield, Specifications
Bob Pool, Location	Wayne Cobine, Final Design
William Geibel, Prelim. Design	Ron Noble, Base Design
Tom Falls, Project Manager	Cam Gilmore, Environmental
Bob West, Region 2 Geologist	Gary Potter, Program Manager

Art Louie
Chet Anderson - Any data or diaries?
Bill Piete - Any data or diaries?
Eldon Everton - Any data or diaries?
Wendell Stanley - Any data or diaries? Re conversations?
Ron Kleinschmit

William Cloran w/o attach.

10166m

IN THE CIRCUIT COURT OF THE STATE OF OREGON

FOR THE COUNTY OF CLATSOP

MOCON CORPORATION, Plaintiff, v. STATE OF OREGON, acting by and through its Transportation Commission, Department of Transportation, Oregon State Highway Division, Defendant.	No. CC86-2168 PLAINTIFF'S FIRST REQUEST FOR PRODUCTION OF DOCUMENTS

To: Defendant and Its Attorney William F. Cloran, Assistant Attorney General, Department of Justice, State of Oregon:

Pursuant to ORCP 43, plaintiff requests defendant to produce the following documents for plaintiff's inspection and copying at the offices of Paul R. Meyer, P.C., Suite 1900, 900 S.W. Fifth Avenue, Portland, Oregon 97204-1228, on Monday, October 27, 1986 at 2 p.m., or at such other place as may be mutually agreed.

INSTRUCTIONS

As used in this request, the term document or documents means without limitation the following items, whether printed, written or reproduced by any mechanical or electric process, or written or produced by hand: agreements, contracts, communications, correspondence, telegraphically exchanged messages, telegrams, summaries or records of telephone or personal conversations, meetings or interviews, diaries, graphs, reports, notebooks, plans, summaries, or other records of meetings or

PAUL R MEYER, P.C.

conferences, summaries or reports of investigations or of negotiations, opinions or reports of consultants, financial statements, ledgers, journals, invoices, delivery tickets, statements, billings, purchase orders, or computerized printouts of any of the foregoing.

Whenever the term "the Project" is used in this request, it shall refer to the Cannon Beach Jct. Job, which is the subject of this litigation.

1. All documents reflecting or relating to geological studies made of the soils in the Project site, including all communications and discussions concerning and conclusions reached with respect to said studies.

2. All documents reflecting the geotechnical work performed in developing and preparing the plans and specifications for the Project, including all communications, discussions and conclusions relative thereto.

3. All documents reflecting or relating to the design and determination of the specifications relative to the excavation and embankments on the Project, including all communications, discussions, conclusions and opinions expressed by any person or entity relative thereto.

4. All documents reflecting the construction of embankments on any portions of the Oregon Coast Highway (U.S. 101) from Astoria to Brookings during the past ten years, as relates to:

* * *

PAUL R MEYER, P.C.

(a) Specifications for construction of embankments for roadbeds;

(b) The moisture requirements for the construction of said embankments;

(c) Actual moisture or embankment construction;

(d) Change orders, claims, disputes or other controversies arising over the moisture content of soils used for embankment on any portion of the Coast Highway.

5. All documents reflecting all studies performed of the Project area, soils and embankments subsequent to the beginning of the Project by Mocon, including inspection reports, communications, decisions with respect to the use of soils with more than optimum moisture for embankments, communications, discussions, opinions and conclusions expressed by Highway Division personnel or persons with whom the Highway Division was in communication relating to the excavation and embankments on the Project.

6. All documents reflecting consideration of alternative designs for the excavation and building of embankments on the Project both prior to and subsequent to the execution of the Contract.

7. All documents reflecting communications between the Highway Division and the Federal Highway Administration or other federal, state or local governmental agency relative

* * *

PAUL B MEYER, PC

to the Project and relating to excavation and embankment construction on the Oregon Coast from January 1, 1980 to date.

8. All documents reflecting claims or disputes involving Hamilton Construction at or near Wheeler, Oregon for the State Highway Division.

9. All documents reflecting or relating to disputes or performance of embankment work on the Harry Clatterbos Job in the Astoria/Warrenton area for the State Highway Division.

10. All documents relating to the conference held between the contractor and the State Highway Division on or about August 19, 1986.

11. All documents reflecting the reasons why the State Highway Division issued Change Order No. 8.

12. All documents reflecting bid schedules for all bidders on this job.

13. All documents reflecting pre-bid questions or inquiries by any bidders concerning the Project and the responses by State Highway Division personnel.

14. All documents reflecting what the State Highway Division deems to be practical or standard construction methods for drying embankment material from excavations on the Project.

15. All documents substantiating the contention made in William Anhorn's letter to Mocon dated September 22, 1986, in which he indicates that the difficulties encountered by Mocon

* * *

PAUL R MEYER, P.C.

arise because Mocon "has not properly placed and dried the material using methods proven in the industry."

16. To the extent not covered by the above requests, all documents reflecting problems encountered by the State Highway Division, or any of its contractors, on all projects in the coastal areas of the state of Oregon during the past five years relative to the drying of materials and the reaching of optimum moisture or any other moisture level, including reference to the techniques and materials used by the contractors to attempt to dry materials.

17. All documents reflecting research performed by the State Highway Division relative to the manner and method of drying materials to be used in embankment along the Coast Highway and other coastal jobs.

18. All documents reflecting information, opinions or conclusions concerning the size of disks to aerate and dry materials.

19. All documents reflecting the data, reasoning, discussion and motivation concerning why the State Highway Division proposed Price Agreement No. 9.

20. All documents relating to what constitutes "depreciable deflection or reaction under the compacting equipment involved," as set forth in proposed Price Agreement No. 9.

21. All documents reflecting any criticism of the Plans and Specifications prepared by the State Highway Division

PAUL R MEYER, P.C.

for this job, both pre-award and post-award, exclusive of those made by contractor in this case, whether such criticisms came from personnel within the Highway Division or from any other agency or person.

22. All documents reflecting any consideration given to revise specifications relating to excavation and embankment not already included in the above requests.

PAUL R. MEYER, P.C.

By _____
Paul R. Meyer (53073)
Attorney for Plaintiff

PAUL R MEYER, P.C.

8949

9

ROAD DESIGN SECTION 378-6558

December 13, 1983

C. O. Fredrickson
Region 2 Engineer, SALEM

W. H. Wakerlig
Right of Way Descriptions Supervisor

S. Unit Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

We are forwarding herewith a reproducible map (8B-26-20) covering the subject survey for your verification, narrative, professional seal, signature and submittal to the county per ORS 209.250.

The narrative shall explain the purpose of the survey, the basis on which lines were established and which found monuments and deed elements controlled the lines established or reestablished.

If, the narrative is a separate document, the narrative and the map should be referenced to each other and the narrative should contain additional information as follows:

1. Location of survey by ¼ Section, Donation Land Claim, Township and Range.

2. Date of Survey.

3. Surveyor's Seal.

4. Surveyor's business name and address.

By:

Arthur L. Dean
Sr. Designer Draftsman

Attachment

____Vautaw ____✓____	RECEIVED	____
____Anderson____		____
____Adams ____		____
____Mesinb ____	DEC 13 1983	Do Not File ☐
____Steenhammer____		Return To____
____Turpin____		Bring Up ____/____/____
____Trout____	ROAD DESIGN SECTION	Action____
____Wehning____		____

1947

cc: OSHD (Coulter)

STATE COPY

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL ACCEPTANCE REPORT

1 - 19 - 3

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	5	Clatsop	Oregon
DATE OF REPORT	**REPORT MADE BY**		**PROJECT NO.**
1/19/83	William Kappus, Area Engineer		F-2-6(4)
COMPLETION DATE	**ACCEPTANCE DATE BY CONTRACT AGENCY**	**TIME ELAPSED**	**CONTRACT TIME**
1/20/81	8/5/81	70 %	650 calendar days
APPROVED EXTENSIONS	**LOCATION**		
NONE	US 101, 2.5 mi SW of Astoria, SW 2.85 mi		

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

SOUTH UNIT, ASTORIA - CAMP RILEA
OREGON COAST HWY
Grading, Drainage & Paving

This project provided for the construction of 2.85 miles of two-lane highway (2-12' lanes with 2-8' shoulders) on new alignment. Also constructed was a prestressed concrete slab span bridge, left-turn bays and a railroad crossing with protective devises.

The final project cost overran the original authorization by approximately 4½ percent. The major contributing factor to this overrun was an increase in A. C. quantities.

A final inspection of the completed project was made on November 24, 1980.

RECEIVED
STATE HWY ENGR
JAN 26 '83
REFER TO
Kearsey
FOR

Info	Invest	R/D	D/R	Sign	Act	File

cy 1/26

*NOTE: Not applicable for direct federal projects.

ACCEPTANCE OF PROJECT IS RECOMMENDED			ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE	Original Signed By WILLIAM H. KAPPUS		SIGNATURE Original Signed By G. K. HOSSNER	
W. H. Kappus			G. K. Hossner	
TITLE Area Engineer	Area Engineer	DATE 1-24-83	TITLE Field Operations Engineer	DATE 1-25-83

Field Operations Engineer

FORM FHWA-2448 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

E

8949

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

1-6-82

LETTER OF APPROVAL AND/OR AUTHORIZATION

1. FEDERAL-AID PROJECT NO.: F-2-6(4)

2. STATE PROJECT NO.: See below

3. FROM: Dale E. Wilken, Division Administrator
FHWA - Oregon Division

4. PROGRAM NO.:

5. ITEM NO.: 90169

2A. COUNTY NAME: Clatsop

6. TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

7. DATE AUTHORIZATION EFFECTIVE: 1/6/82

8. FEDERAL ROUTE NUMBER: Primary 2

9. STATE ROUTE NUMBER: Primary 9

10. GENERAL LOCATION:

South Unit Astoria - Camp Rilea Section

11. GENERAL DESCRIPTION OF WORK

Utility cost adjustment

12. YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- [ ] PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- [ ] PRELIMINARY ENGINEERING FOR CONTRACT PLAN PREPARATION
- [ ] ACQUISITION OF RIGHT-OF-WAY
- [ ] CONSTRUCTION – ADVERTISE FOR RECEIPT OF BIDS
- [ ] CONSTRUCTION PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS
- [XX] OTHER (Specify) See below

13. REMARKS

As requested in Mr. Swan's letter of 1/4/82 I approve the revised cost for the adjustment of Pacific Power and Light Company's facilities to a TEC of $18,029.24.

(Increase TEC $3,550.24)

RECEIVED
STATE HWY ENGR
JAN 13 '82
REFER TO
FOR

14. DATE: 1/6/82

15. SIGNATURE OF APPROVING OFFICIAL: D K Swan

16. TITLE: for Division Administrator

FORM PR-1240 (Rev. 12-79) PREVIOUS EDITIONS MAY BE USED

8949

1-4-82

ROW 18-4

TO: D. E. Wilken, Division Administrator
Federal Highway Administration

FROM: D. E. Swan
Operation Programming Engineer

NOTED
E. S. HUNTER

SUBJECT: Final Cost, Power Line Relocation
Pacific Power & Light Company
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
Project No. F-2-6(4)

Here is a copy of Pacific Power & Light Company's Invoice No. 04-004, dated March 26, 1981, which covers the total cost of the reimbursable relocation of aerial power line facilities in conflict with this project. The estimated cost to the State for the relocation work, as approved by your Letter of Approval and/or Authorization (PR-1240) dated July 3, 1979, was $14,479. The final cost to the State is $18,029.24 resulting in an overrun of $3,550.24 or 24.5 percent.

An explanation of the cost overrun was submitted by Pacific Power and Light Company's letter of May 20, 1981. A copy of the letter is attached for your information. The final billing invoice has been audited and found to be correct. It is the State's opinion that total relocation cost is justified and equitable.

Your approval of Federal participation in the State's share of the final relocation cost, $18,029.24, is requested.

DES/JMC/llr
cc: E. S. Hunter
Jack M. Cartwright
Pete Gonzalez

RECEIVED
TECHNICAL SERVICES
JAN 4 '82
REFER TO
FOR
Info | Invest | R/D | D/R | Surf | Act | Fin

8949 9

ROAD DESIGN SECTION 378-6558 DES 16

C. O. Fredrickson
Region 2 Engineer, SALEM

November 17, 1981

W. H. Wakerlig
Right of Way Descriptions Supervisor

South Unit, Astoria-Camp Riles Section
Oregon Coast Highway
Clatsop County

Vorstberg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
NOV 17 1981
ROAD DESIGN SECTION

Do Not File
Return To
Bring Up
Action

We are forwarding herewith a reproducible map covering the subject survey for your verification, narrative, professional seal, signature and submittal to the county per ORS 290.250.

The narrative shall explain the purpose of the survey, the basis on which lines were established and which found monuments and dead elements controlled the lines established or reestablished.

If, the narrative is a separate document, the narrative and the map should be referenced to each other and the narrative should contain additional information as follows:

1. Location of survey by ¼ Section, Donation Land Claim, Township and Range.

2. Date of Survey.

3. Surveyor's Seal.

4. Surveyor's business name and address.

[illegible]
[illegible] Hoffman

#8949

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Sims Electric, Inc. No. 9177	Coos Bay/Roseburg Hwy. @ 2nd St. (Coquille) Coos County	July 14, 1981
Sims Electric, Inc. No. 9155	Ore. Coast Hwy. @ 4th St. (Tillamook) Tillamook County	July 16, 1981
Wildish-Corvallis Construction Co. No. 9040	SPRR X'ing @ Granger Benton County	July 20, 1981
Salem Road & Driveway Co. No. 9159	12th St.SE-Ewald Ave.SE (Salem) Marion County	July 31, 1981
Riedel International No. 9107	SPRR X'ing @ SE Lawnfield Rd. Clackamas County	August 3, 1981
D Mc D Corp. No. 9256	Enterprise Rock Production Wallowa County	August 3, 1981
Rock Process, Inc. No. 9280	Meacham Rock Production Umatilla & Union Counties	August 3, 1981
Morse Bros. Contractors, Inc. No. 9002	Siuslaw River-Walton Lane County	August 4, 1981
Wisar Const. Co., Inc. No. 9057	Little Butte Creek Bridge Jackson County	August 4, 1981
Harry Claterbos Co. J.V. No. 8949	S.Unit, Astoria-Camp Rilea Clatsop County	August 5, 1981
R & R Excavating Co.,Inc. No. 9146	NE 33rd Ave.@ NE Broadway & SE 139th Ave. @ SE Stark St. (Portland) Multnomah County	August 6, 1981

August 6, 1981

C. T. Keasey
Asst. State Highway Engineer

August 7, 1981

United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, WA 98401

COM 5
#8949

Gentlemen:

Contract No. 8949 awarded to Harry Claterbos Co., JV, for work on the S. Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County was completed on April 16, 1981 and accepted by the State Highway Division on August 5, 1981.

Final payment in the amount of $3,000 will be released to Mr. Haip Q. Quach, Vice President, Rainier National Bank, after August 12, 1981. The total contract amount is $4,278,592.23 including $28,144.52 for work performed under force account.

You have been previously notified of a claim filed against the performance bond on this contract which has been paid.

Sincerely,

Robert W. Garnaas
Commission Services

cc: Mr. Haip Q. Quach
Vice President
Rainier National Bank
P. O. Box 40
Seattle, WA 98111

Harry Claterbos Co., JV
Rt. 1, Box 984
Astoria, OR 97103

bc: C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Hzsek
C. O. Fredrickson

8949

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

4 - 23 - 81

LETTER OF APPROVAL AND/OR AUTHORIZATION

1. FEDERAL-AID PROJECT NO.: F-2-6(4)

2. STATE PROJECT NO.: See below

3. FROM: Dale E. Wilken, Division Administrator
FHWA, Oregon Division

4. PROGRAM NO.:

5. ITEM NO.: 90169

2A. COUNTY NAME: Clatsop

6. TO

Mr. H. S. Coulter
State Highway Engineer
Oregon State Highway Division
Salem, Oregon

7. DATE AUTHORIZATION EFFECTIVE: 3-30-81

8. FEDERAL ROUTE NUMBER: Primary 2

9. STATE ROUTE NUMBER: Primary 9

10. GENERAL LOCATION:

South Unit Astoria - Camp Rilea

11. GENERAL DESCRIPTION OF WORK

Furnish and install luminaires

12. YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR CONTRACT PLAN PREPARATION
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONSTRUCTION -- ADVERTISE FOR RECEIPT OF BIDS
- ☒ CONSTRUCTION PROCEED ON AN FORCE ACCOUNT BASIS
- ☐ OTHER *(Specify)*

13. REMARKS

I approve the advance authorization date of 3-30-81 as requested in Mr. Keasey's letter of 4-17-81 as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 17 is approved for a TEC of $32,000, FF $28,208. (The above authorization does not require additional obligation of funds.)

RECEIVED
STATE HIGHWAY ENGR
APR 27 '81
Maehring

orig D:
4-29-81

14. DATE: 4-23-81

15. SIGNATURE OF APPROVING OFFICIAL: G. K. Keasey

16. TITLE: for Division Administrator

FORM PR-1240 (Rev. 12-79) PREVIOUS EDITIONS MAY BE USED

Form FHWA 121 (1/80)

#8949

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

THE OREGON DIVISION - SALEM
UNITED STATES GOVERNMENT

memorandum

Subject: Oregon Project F-2-6(4)
South Unit, Astoria - Camp Rilea
Oregon Coast Highway
State Force Order NO. 18

Date: April 17, 1981

From: Dale E. Wilken, Division Administrator

Reply to Attn. of: HFO.2-OR

To: Mr. H. S. Coulter, State Highway Engineer, ODOT

Mr. C. T. Keasey's April 14, 1981 State Force Order request on the subject project has been reviewed.

Changes in traffic patterns and volumes on local road networks are to be expected when lengthy sections of new alignment are constructed and opened to traffic. Minor modifications to the network to better accommodate these changes, such as is proposed in the subject request, are the inherent responsibility of the local road authority, in this case the Oregon Highway Division. Such work is therefore not eligible for Federal participation.

D.K. Hueuer
for Dale E. Wilken

NOTED
H. S. COULTER

cc:
OSHD (C T Keasey, Const)

RECEIVED
STATE HWY ENGR
APR 21 '81
REFER TO
FOR
Info | Invest | R/D | D/R | Sec | Act | File

Can we take a new at the Tits that all necessary associated work to be part of the project should be eligible?

Larry—
This intersection is ½ mile away from the job and was in no way a part of the original project. I don't think we should waste our ammunition on this one.

OK

#8949 4-1-81

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

1. FEDERAL-AID PROJECT NO.: F-2-6(2)
2. STATE PROJECT NO.: See below
3. FROM: Dale E. Wilken, Division Administrator, FHWA - Oregon Division
4. PROGRAM NO.:
5. ITEM NO.: 80157
2A. COUNTY NAME: Clatsop
6. TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

7. DATE AUTHORIZATION EFFECTIVE: 4/1/81
8. FEDERAL ROUTE NUMBER: Primary 2
9. STATE ROUTE NUMBER: Primary 9
10. GENERAL LOCATION: South Unit Astoria - Camp Rilea Section
11. GENERAL DESCRIPTION OF WORK: Right of Way
12. YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- [ ] PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- [ ] PRELIMINARY ENGINEERING FOR CONTRACT PLAN PREPARATION
- [X] ACQUISITION OF RIGHT-OF-WAY
- [ ] CONSTRUCTION – ADVERTISE FOR RECEIPT OF BIDS
- [ ] CONSTRUCTION PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS
- [ ] OTHER *(Specify)*

13. REMARKS

As requested in Mr. Swan's letters of 3/10/81 and 3/25/81 you are now authorized to proceed with the acquisition of files 51837 and 51853 at a TEC of $5,600 Federal Funds $4,804.

Federal participation is limited to that right of way actually incorporated in the final location of the subject project.

RECEIVED
STATE HWY ENGR
APR 7 '81
REFER TO Mooring
FOR
Info | Inves | R/D | D/R | Sgn | Ap | File

orig to - 4-7-81

14. DATE	15. SIGNATURE OF APPROVING OFFICIAL	16. TITLE
4/1/81	G. K. Hansen	for Division Administrator

FORM PR-1240 (Rev. 12-79) PREVIOUS EDITIONS MAY BE USED

#8949

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

1. FEDERAL-AID PROJECT NO.: F-2-6(4)
2. STATE PROJECT NO.: See below
2A. COUNTY NAME: Clatsop

3. FROM: Robert B. Hathaway, Assistant Division Admin
FHWA - Oregon Division

4. PROGRAM NO.:

5. ITEM NO.: 90169

6. TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

7. DATE AUTHORIZATION EFFECTIVE: 2/5/81
8. FEDERAL ROUTE NUMBER: Primary 2
9. STATE ROUTE NUMBER: Primary 9

10. GENERAL LOCATION:

South Unit Astoria - Camp Rilea

11. GENERAL DESCRIPTION OF WORK

Revision of existing signing

12. YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR CONTRACT PLAN PREPARATION
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONSTRUCTION – ADVERTISE FOR RECEIPT OF BIDS
- ☒ CONSTRUCTION PROCEED ON ~~AN ACCEPTABLE BID~~ FORCE ACCOUNT BASIS
- ☐ OTHER *(Specify)*

RECEIVED
STATE HWY ENGR
MAR 19 '81
TO
Mailing

13. REMARKS

Orig. 3-20-81

This will confirm the advance authorization date of 2/5/81, as requested in Mr. Keasey's letter of 2/12/81 as being in the public interest for the use of State Forces to proceed with the above work.

State Force Order No. 14 is approved for TEC NTE $840 Federal Funds $740.

14. DATE	15. SIGNATURE OF APPROVING OFFICIAL	16. TITLE
3/12/81	G. P. Keasey	Assistant Division Administrator

FORM PR 1240 (Rev. 12-79) PREVIOUS EDITIONS MAY BE USED

8949

STATE COPY

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	Oregon
MONTHLY TRANSACTION NUMBER: 2-190		
PROJECT REPORT NUMBER:	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County: Clatsop
MODIFICATION NUMBER: 1	2/17/81	Project Number: F-2-6(4)

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on June 19 , 19 79 , is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 4,436,962.00	$ 4,897,069.00
Federal funds	$ 3,911,181.00	$ 4,316,765.00
Other revisions		

This modification is made for the following reasons: To include increase in construction costs.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 17th day of February , 1981 .

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By _____

Asst. State Hwy. Engineer
(Title)

XXX For: H.S. Coulter

State Highway Engineer
(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: E.J. Valach (Actg.)

Form PR-2A
(Rev. 10-75)

Previous editions are obsolete

Gen. File

Oregon State Highway Division
Salem, Oregon February 11, 1981

Federal Aid Project
No. F-2-6(4)

S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

REVISED PROJECT AGREEMENT ESTIMATE

Type Code 6204
Roadway (Sta. 167+80 to Sta. 242+09)(Sta. 243+04 to Sta. 308+00)

Subtotal of previous estimate of June 12, 1979 $3,787,452.00

Previous Estimate

Temporary Signs	884	Sq. Ft.	10.00	$ 8,840.00
Temporary Barricades	14	Each	150.00	2,100.00
Temporary Conc. Barr. Reflect	475	Lin. Ft.	14.00	6,650.00
Flagman	2,000	Hr.	19.25	38,500.00
Sand Embankment	57,100	Ton	2.80	159,880.00
Surcharge Removal	22,200	Cu. Yd.	1.25	27,750.00
Watering	2,650	M-Gal.	8.00	21,200.00
Class "B" Asphaltic Conc.	23,800	Ton	16.50	392,700.00
Asphalt Cement in Mixture	1,500	Ton	108.00	162,000.00
Roadside Seed & Straw Mulch w/Mulch Binder	26	Acre	537.00	13,962.00
				$ 833,582.00

Revised Estimate

Temporary Signs	1,146	Sq. Ft.	10.00	$ 11,460.00
Temporary Barricades	3,200	Each	150.00	4,800.00
Temporary Conc. Barr. Reflect	550	Lin. Ft.	14.00	7,700.00
Flagman	4,128	Hr.	19.25	79,464.00
Sand Embankment	90,215	Ton	2.80	252,602.00
Surcharge Removal	24,660	Cu. Yd.	1.25	30,825.00
Watering	4,647	M-Gal.	8.00	37,176.00
Class "B" Asphaltic Conc.	30,048	Ton	16.50	495,792.00
Asphalt Cement in Mixture	1,765	Ton	108.00	190,620.00
Roadside Seed & Straw Mulch w/Mulch Binder	37	Acre	537.00	19,869.00
Sand Embankment (P.A. #5)	16,060	Cu. Yd.	2.80	44,968.00

March 1980 Asphalt Adjustment	20 Ton	56.50	1,130.00
August 1980 Asphalt Adjustment	12 Ton	67.25	807.00
September 1980 Asphalt Adjustment	1,340 Ton	67.25	90,115.00
October 1980 Asphalt Adjustment	392 Ton	67.25	26,362.00
			$1,293,690.00
		Increase	460,108.00
		SUBTOTAL	$4,247,560.00
		Engineering	473,430.00
		TOTAL	$4,720,990.00

Type Code X080
Structure (Bridge #8317)(Sta. 242+09 to Sta. 243+04)

Total the same as previous estimate of June 12, 1979 $ 176,079.00

Length of Roadway ---------- 2.637 mi.
Length of Structure -------- 0.018 mi.
TOTAL 2.655 mi.

Cost of Roadway per mile ---$1,790,288.21

Work Retained in Program Status
(Not include in amounts below)

Slide Correction	All Required	$ 35,000.00
Work by Burlington Northern	All Required	84,000.00
Work by Pacific Power & Light	All Required	25,000.00
Work by City of Warrenton (Water)	All Required	5,000.00
Work by Cox Cablevision	All Required	1,000.00
Reconstruct Water Lines	All Required	9,000.00

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
Roadway	$4,720,990.00	$4,161,552.00	$559,438.00
Structure	176,079.00	155,213.00	20,866.00
TOTAL	$4,897,069.00	$4,316,765.00	$580,304.00

Group 1-100%
Contract No. 8949
Prefix 4-1920
Prefix 4-1031

8949

STATE COPY

OMB No. 04-R2089

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State
MONTHLY TRANSACTION NO. 6-186	FEDERAL-AID PROJECT AGREEMENT 6-19-79	Oregon
		County Clatsop
		Project No. F-2-6 (4)

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

US 101, 2.5 mi. S.W. of Astoria, SW 2.65 mi.

PROJECT CLASSIFICATION OR PHASE OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING AND RESEARCH (HP & R)		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	5-2-79	2.355
OTHER *(Specify)*		

FUNDS Pro Rata 88.15%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 4,430,962.00	$ 3,911,181.00

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By E J Hunter

Assistant State Highway Engineer
(Title)

For: H. S. Coulter

State Highway Engineer
(Title)

By _____

_____
(Title)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: G. L. Green

Date executed by Division Administrator JUN 19 1979

Form PR-2 (Rev. 10-75) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PREPARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation..

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects. No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtednesss of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 307 (c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Administrator concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

F. 1 a

Oregon State Highway Division
Salem, Oregon, June 12, 1979

Federal Aid Project
No. F-2-6 (4)

S. UNIT, ASTORIA - CAMP RILEA SECTION
OREGON COAST HIGHWAY
CLATSOP COUNTY

Project Agreement Estimate.

Type Code 6204
Roadway (Sta. 167+80 to Sta. 242+09) (Sta. 243+04 to Sta. 308+00)

Furnishing Field Laboratory	1	Each	2,200.00	$ 2,200.00
Mobilization	All	Required		309,500.00
Temporary Protection and Direction of Traffic	All	Required		15,400.00
Temporary Signs	884	Sq.Ft.	10.00	8,840.00
Temporary Barricades	14	Each	150.00	2,100.00
Temporary Continuous Rail Traffic Barrier, Reflectorized	425	Lin.Ft.	6.00	2,550.00
Temporary Concrete Barrier, Reflectorized	475	Lin.Ft.	14.00	6,650.00
Temporary Plastic Safety Markers	80	Each	80.00	6,400.00
Flagmen	2,000	Hour	19.25	38,500.00
Clearing and Grubbing	All	Required		122,300.00
Removal of Structures and Obstructions	All	Required		3,100.00
Ditch Excavation	40	Cu.Yd.	8.00	320.00
General Excavation	223,950	Cu.Yd.	1.80	403,110.00
Sand Backfill	54,200	Ton	3.15	170,730.00
Sand Embankment	57,100	Ton	2.80	159,880.00
Surcharge Removal	22,200	Cu.Yd.	1.25	27,750.00
Toe Trench Excavation	560	Cu.Yd.	6.00	3,360.00
Trench Excavation	8,050	Cu.Yd.	8.00	64,400.00
Finishing Roadbed and Slopes	All	Required		16,000.00
Watering	2,650	M.Gal.	8.00	21,200.00
Aggregate Shoulders	10,000	Ton	11.00	110,000.00
Treated Base Mixture	63,350	Ton	15.20	962,920.00
Cement in Treated Base Mixture	3,500	Ton	93.50	327,250.00
Class "B" Asphalt Concrete Mixture	23,800	Ton	16.50	392,700.00
Asphalt Cement in Mixture	1,500	Ton	108.00	162,000.00
Asphalt in Tack Coat	10	Ton	110.00	1,100.00
Concrete in Culvert Headwalls	19	Cu.Yd.	350.00	6,650.00
Reinforcement in Culvert Headwalls	1,450	Lb.	0.60	870.00
12-inch Culvert Pipe	90	Lin.Ft.	11.00	990.00
18-inch Culvert Pipe	1,690	Lin.Ft.	14.50	24,505.00
24-inch Culvert Pipe	180	Lin.Ft.	19.00	3,420.00
36-inch Culvert Pipe	510	Lin.Ft.	68.00	34,680.00
72-inch Culvert Pipe	220	Lin.Ft.	244.00	53,680.00
18-inch Sewer Pipe	100	Lin.Ft.	12.00	1,200.00
Concrete Inlets, Type G-2	1	Each	600.00	600.00
Concrete Inlets, Type G-2MA	1	Each	800.00	800.00

Oregon State Highway Division
Salem, Oregon, June 12, 1979

Federal Aid Project
No. F-2-6 (4)

Concrete Inlets, Type CG-1	1 Each	1,100.00	1,100.00
8-inch Drain Pipe	1,000 Lin.Ft.	8.00	8,000.00
Fiber Filter	1,940 Sq.Yd.	3.00	5,820.00
Gravel in Drains	140 Cu.Yd.	16.00	2,240.00
Guard Rail, Type 2A	1,675 Lin.Ft.	18.00	30,150.00
Guard Rail, Type 3	150 Lin.Ft.	35.00	5,250.00
Guard Rail Anchors, Type 1	10 Each	330.00	3,300.00
Rail End Pieces, Type C	10 Each	165.00	1,650.00
Type 2 Fence	1,040 Lin.Ft.	3.00	3,120.00
Concrete Curbs	270 Lin.Ft.	7.00	1,890.00
Extra For Asphalt Approaches	31 Each	165.00	5,115.00
Paved Culvert End Slopes	580 Sq.Ft.	9.00	5,220.00
Loose Riprap Class 100	1,000 Cu.Yd.	17.00	17,000.00
Delineators	190 Each	16.00	3,040.00
Roadside Seeding And Straw Mulch With Mulch Binder	26 Acre	537.00	13,962.00
Straw Mulch (Temporary Erosion Control)	15 Acre	405.00	6,075.00
Structural Concrete in Wall	370 Cu.Yd.	220.00	81,400.00
Reinforcement in Wall	40,000 Lb.	0.47	18,800.00
Removal of Existing Sign Installations	All Required		2,300.00
Wood Sign Posts	All Required		4,000.00
Sign Support Footings	All Required		12,000.00
Breakaway Sign Posts	All Required		12,400.00
Double Sign Support	All Required		2,600.00
Single Post Slip Base	All Required		4,400.00
Type "A" Signs In Place	1,000 Sq.Ft.	18.50	18,500.00
Type "C" and "D" Signs In Place	520 Sq.Ft.	9.00	4,680.00
Type "U" Signs In Place	41 Sq.Ft.	14.00	574.00
Type "EE" Signs In Place	73 Sq.Ft.	11.00	803.00
Type "EEE" Signs In Place	9 Sq.Ft.	12.00	108.00
			$ 3,743,152.00

Anticipated Items		
Railroad Protective Costs	All Required	$ 28,000.00
Permanent Pavement Striping	All Required	2,200.00
Temporary Pavement Striping	All Required	900.00
On The Job Trainees (4 at $800)	All Required	3,200.00
Temporary Erosion Control	All Required	10,000.00
		$ 44,300.00
	Subtotal	$ 3,787,452.00
	Engineering	473,431.00
	Total	$ 4,260,883.00

Type Code X080
Structure (Bridge #8317) (Sta. 242+09 to Sta. 243+04)

Structure Excavation	1,350 Cu.Yd.	10.00	$ 13,500.00

Oregon State Highway Division
Salem, Oregon, June 12, 1979

Federal Aid Project
No. F-2-6 (4)

Furnish Pile Driving Equipment	All Required		22,000.00
Furnish 16" Prestressed Concrete Piling	780 Lin.Ft.	21.00	16,380.00
Drive Prestressed Concrete Piles	660 Lin.Ft.	1.50	990.00
Structural Concrete, Class 3300 (55 c.y.)	All Required		25,300.00
4'x30'/35' Prestressed Slabs	33 Each	1,800.00	59,400.00
Reinforcement (7,000 lbs.)	All Required		5,500.00
Reinforced Concrete Bridge End Panels	180 Sq.Yd.	57.00	10,260.00
Asphalt Membrane	455 Sq.Yd.	7.00	3,185.00
	Subtotal		$ 156,515.00
	Engineering		19,564.00
	Total		$ 176,079.00

Length of Roadway - - - - - - - - - - - - - 2.637 mi.
Length of Structure - - - - - - - - - - - - 0.018 mi.

Total Length 2.655 mi.
Cost of Roadway Per Mile - - - - - - - - - - $ 1,615,788.01

Work Retained in Program Status
(not included in amounts below)

Slide Correction	All Required	$ 35,000.00
Work by Burlington Northern	All Required	84,000.00
Asphalt Cement Adjustment	All Required	15,000.00
Work by Pacific Power & Light	All Required	25,000.00
Work by City of Warrenton (water)	All Required	5,000.00
Work by Cox Cablevision	All Required	1,000.00
Reconstruct Water Lines	All Required	9,000.00

SUMMARY OF FUNDS (88.15%)

Description	Total Cost	Federal Funds	State Funds
Roadway	$ 4,260,883	$ 3,755,968	$ 504,915
Structure	176,079	155,213	20,866
Total	$ 4,436,962	$ 3,911,181	$ 525,781

Group 1 100%
Contract No. 8949
Prefix 4-1920
Prefix 4-1031

Oregon State Highway Division
Salem, Oregon, June 12, 1979

Federal Aid Project
No. F-2-6 (4)

S. UNIT, ASTORIA - CAMP RILEA SECTION
Nonparticipating - State Work

State Responsibility For Damages	All Required		$ 1,000.00
Furnish Mailbox Posts	All Required		200.00
Setting Mailbox Posts	16 Each	50.00	800.00

8949

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

2-9-81

FEDERAL AID PROJECT NO.: F-2-6(4)

STATE PROJECT NO.: See below

FROM: E.J. Valach, Acting Division Admin
FHWA - Oregon Division

PROGRAM NO.:

ITEM NO.: 90169

COUNTY NAME: Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
~~STATE HWY ENGR~~
FEB 12 '81

REFER TO
Moehring
FOR

Init.	Inves.	R/W	D/E	Sign	Acc.	File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5/2/79	1/14/81	Primary 2	Primary 9

GENERAL LOCATION: South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK: Pave four driveways

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION
☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☒ CONSTRUCTION - PROCEED ON [redacted] FORCE ACCOUNT BASIS

REMARKS

This will confirm the advance authorization date of 1/14/81, as requested in Mr. Keasey's letter of 1/16/81 as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 13 is approved for TEC NTE $4,900 Federal Funds $4,319.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
2/9/81	A. K. Hansen	for Acting Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 197[illegible]

8949

FORM 81-734-3001
OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: South Unit, Astoria-Camp Rilea Section		WEEK ENDING: January 31, 1981
		SECTION PREFIX: 004-1031
HIGHWAY: Oregon Coast		COUNTY: Clatsop
NAME OF JOB: South Unit, Astoria-Camp Rilea	KIND OF WORK: Grading, Paving, Structure, and Signing	
CONTRACTOR: Harry Claterbos Company JV	CONTRACT NUMBER: 8949	FEDERAL AID PROJECT NUMBER: F-2-6(4)
DATE OF CONTRACT: May 31, 1979	DATE WORK STARTED: June 13, 1979	ESTIMATED COMPLETION DATE: January 31, 1981
AVERAGE FORCE ON PROJECT FOR THE WEEK MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS: Work SPECIFIED CALENDAR DAYS: 650	WORK DAYS USED CALENDAR DAYS USED: 446
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 69%
PROJECT AUTHORIZATION: $4,639,372.88		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 99
EXCLUSIVE OF ENGINEERING: $4,309,461.92	ENGINEERING AUTHORIZATION: $329,910.96	
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $4,309,461.92	ENGINEERING COST TO DATE: $333,600.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 99
ESTIMATED PERCENT OVERRUN / UNDERRUN: 0 %	PERCENT OF AUTHORIZATION: 101 %	DATE PROJECT WAS COMPLETED: January 20, 1981

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
100	100	100	100	100			

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	2.85	2.85			2.85
MILES PARTIALLY COMPLETED					
MILES COMPLETED	2.85	2.85			2.85
TOTAL ESTIMATED QUANTITIES (CONTRACT)	310,000 CY	64,350 TON			23,800 TON
TOTAL QUANTITIES CORRECTED TO DATE	318,412 CY	115,130 TON			30,048 TON
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	318,412 Cy	115,130 Ton			30,048 Ton
AVERAGE DAILY QUANTITIES	0	0			0
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME	0	0			0
NUMBER OF SHIFTS PER DAY	0	0			0
HOURS PER SHIFT	0	0			0

EQUIPMENT USED DURING THE WEEK:

None.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO	8317							
PERCENT	100							

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 25	Cloudy	446		
MONDAY 26	Rain	"		
TUESDAY 27	Showers	"		
WEDNESDAY 28	Showers	"		
THURSDAY 29	Partial sun	"		
FRIDAY 30	Mostly sunny	"		
SATURDAY 31		"		

RECEIVED
FEB 3 1981
CONSTRUCTION
BRANCH

Kuesey, Jackimond, Hopkins, Williams, Johnson, Glenn, Richards, Berg, Inloes, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY 25	No Activity.
MONDAY 26	"
TUESDAY 27	"
WEDNESDAY 28	"
THURSDAY 29	"
FRIDAY 30	"
SATURDAY 31	"

REMARKS

No activity this week. All contractor work activities were completed on January 20, 1981. This will be the last report for this project.

SIGNED C. Anderson LOCATION Astoria

Chet Anderson

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

89-1

4-1031

3

STATE OF OREGON

INTEROFFICE MEMO

TO: C. T. Keasey
ASSISTANT STATE HIGHWAY ENGINEER

DATE: January 12, 1981

NOTED
H. S. COULTER

FROM: Gerald Wimer
REGION CONSTRUCTION ENGINEER

SUBJECT: Perkins Road Intersection

Astoria-Camp Rilea Section
Oregon Coast Highway

2 copy
Con 10

During the past year I showed you , George Hopkins, and Bill Kappus individually the problem of a private roadway and a frontage road both intersecting the old Coast Highway very near to its southerly connection with the new Coast Highway opposite where Perkins Road connects to the new Coast Highway. Some improvement can be achieved by relocating the private road approach belonging to M. Ferguson (R/W 35446) southerly approximately 200' to a new connection to the frontage road.

Procedures for achieving this desired result are slightly involved and detailed in Jim Dixon's attached December 29th letter to Rod Henry. Mr. Henry requests that this proposal totaling an approximate $4,000 net cost to the public be initiated through engineering channels.

This office urges your formal authorization of this proposal. We considered other alternatives but to no avail. If you agree, please have the Right of Way Description Engineer prepare the necessary options. If he needs any further field information, we are prepared to assist.

GW/rgb
cc: Jim Dixon w/attch
Eldon Everton
Chet Anderson

1-13-81

H.S. Coulter-
I recommend your approval.
1-14-81
cy/Keasey
Indreland
Dejove

RECEIVED
STATE HWY ENGR
JAN 14 '81
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Art | File

Keasey K RECEIVED Richards
Jackmond JAN 13 1981 Berg
Hopkins Inloes
Williams Widmer
Johnson CONSTRUCTION Gebauer
Olson BRANCH Church

APPROVED
STATE HIGHWAY ENGINEER
Date 1/14/81

STATE OF OREGON

INTER-OFFICE MEMO

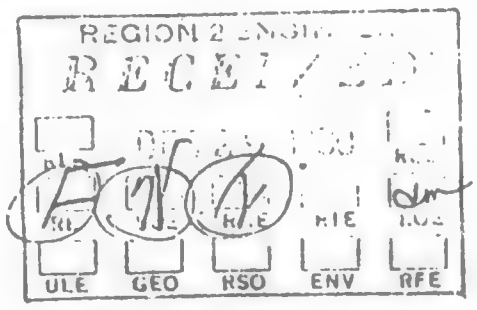
Contains Recycled Materials

Highway DEPT. | 378-2641 TELEPHONE

TO: Rod Henry
Assistant R/W Manager

DATE: December 29, 1980

FROM: J. W. Dixon
Region II R/W Supervisor



SUBJECT: Access and Traffic Pattern Revisions
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

The Region Office has some concern about the traffic patterns created by two frontage roads and a private access on the Oregon Coast Highway at Perkins Road. Federal Highway has also recognized the area as a potential problem. The situation appears severe enough to suggest condemnation if needed to cure the problem.

We elected to make some preliminary contacts with adjoining property owners in an attempt to advance one of several alternatives proposed by the Region Office. Only one proposal met with agreement from the property owner whose access most needs revision and the abutting owner who would have to sell some land to accomplish the change. We have Region and FHWA concurrence in the proposed solution.

The only adjoining property owner who is willing to deal on an amiable basis is Mrs. McLean but only if we buy so as to leave the remainder in a rectangular shape. To meet the request and place ourselves in a minimal long term cash outlay position, I have suggested we buy sufficient land so we will have a one acre homesite to dispose of once the roadway for the Ferguson property has been split out from the total acquisition. The parcel I have proposed for purchase can be bought for about $12,000. This amounts to $4,000 for the parcel required and $8,000 for the surplus. Recent activity in the area would indicate the surplus may bring as much as we put into the total. This is based on homesite values and not on unit values.

Following is a step by step procedure to accomplish the access revision:

1. Establish a file on the McLean property acquiring approximately 1.5 acres via a Parcel 1 and Parcel 2 description. Parcel 1 representing the roadway to be conveyed to Ferguson's, Parcel 2 the surplus to be disposed of immediately after closing. We would acquire complete control of access where the tract acquired from McLean abutts the frontage road except for the southerly 60 feet.

2. An access control file would be established for the driveway from the Ferguson property. The damages due to landlocking of the Ferguson parcel would exceed the value of 0.5 acre roadway we would convey to them upon declaring it surplus. An easement for ingress and egress would have to be retained over this parcel to provide access to the McLean remainder. An easement for access of the one acre surplus would also have to be retained. Most probably just the southern 60 feet of the roadway parcel.

3. The 1.0 acre parcel, after a surplus declaration would immediately be sold at auction.

I realize this is a rather elaborate procedure. However, other alternatives require dealing on roadways which people do not wish to sell, including Mrs. McLean. Plus, we would be involved in acquiring access control on the Ferguson parcel without a means of reaching an amiable settlement.

The attached sketch will make the procedure easier to follow. If you can agree to the purchase and exchange or some minor modifications, please have the descriptions prepared and have the construction people request authorization to proceed.

JWD:lj

cc: Gerald Wimer

Attachments

BURLINGTON NORTHERN, INC.

H.E. Burtrow
179-705
35442
0.48 Ac.±
RW 28422
291-491

C.V. Mason
188-545
35443
0.4 Ac.±
Deed RW 28071
289-436

G.&V. McLean
215-339
35445
0.39 Ac.±

J.T.V. Dooley
275-318
0.36 Ac.± Lt
49492
0.03 Ac.±

35447
0.43 Ac.±
Deed RW 26910
292-107

35444
0.78 Ac.±

35445 ②
0.43 Ac.±

A.&L. Demmet
382-369
1.19 Ac.± Rl.

4.57 Ac.± Rl.

Total Purchase
Carway to Ferguson (Rem. 5.82 Ac.± Rl.
Surplus to sell
Access control-McLean
Access control-Ferguson
Retain easement for state surplus

2°CR
Δ=6°08'30"
T=153.69'

M. Ferguson
298-887

Need 1 ac.
Surplus

G. McLean
207-71

35446

G. Davidson D.L.C. #39
A.C. Wirt D.L.C. #38

D.L.C. No. 39
A.C. WIRT D.L.C.

1"=400'

S 8°28'30" E

RW 297-3

8949

9

ROAD DESIGN SECTION

DES 16-1
TRA 7-5

December 11, 1980

Chet Anderson
Resident Engineer
ORIGINAL SIGNED
DUANE O. CHRISTENSEN

Duane O. Christensen
Final Design Engineer

Sign Revisions
S. Unit Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
Contract No. 8949

This letter is in response to a "Memo to File" dated December 1, 1970 written by Mr. Elmer Scofield.

We do not concur with the proposed treatment of the steel supports for Sign 17. The existing posts should be replaced with new posts one foot longer above the hinge, manufactured from WG 15. The existing post stubs and concrete footings will be adequate. This has been discussed with Mr. Glen Clark in Traffic and he concurs with the above.

Relative to Signs 14 and 17, we recommend that they be modified by State Forces as per the attached drawings and costs for the new steel supports, modification of the signs, labor and equipment be charged against the project.

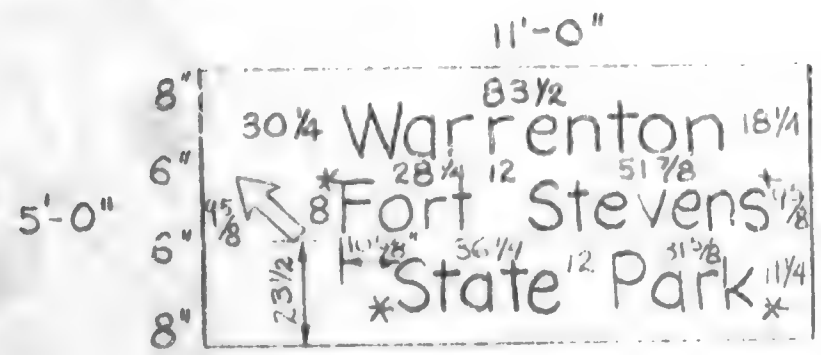
WBB:ja

Attachment

cc C. T. Keasey (w/attachment)
C. O. Fredrickson "
E. L. Swenson "
W. G. Beard "
L. E. George "

Sign Revisions

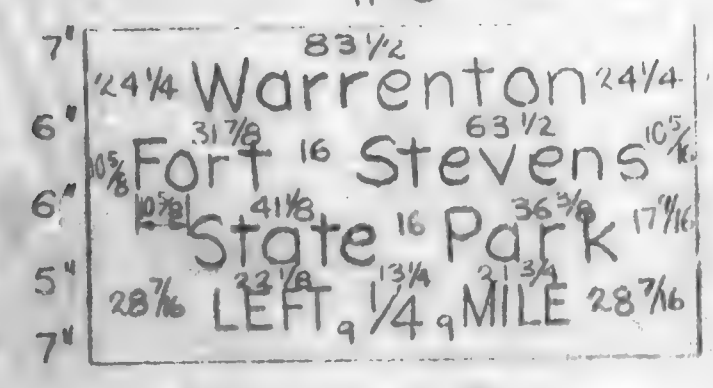
ASTORIA - CAMP RILEA SECTION
OREGON COAST HIGHWAY
CLATSOP COUNTY
CONTRACT NO. 8949



Sign (14)

10" x 16" Arrow
* Reduce spacing by 50%

Type "A" (Revised)



6" Fraction Numerals

Sign (17)

Type "A" (Revised)

TRA 7-5

STATE OF OREGON
Highway - Traffic 378-6537

INTEROFFICE MEMO

TO: MEMO TO FILE

DATE: December 1, 1980

FROM: Elmer L. Scofield
Sign Design Engineer

Versteeg ✓
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
DEC 04 1980
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up ___/___/___
Action

SUBJECT: Signing
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

This memo is to document the discussions between Dennis Billings, Region II Office and myself during the past week.

Region II and District 1 engineers have agreed to add the "Warrenton" destination to the northbound signs at Perkins Road (Signs 14 and 17). Dennis called this office to determine if the legend could be added to existing signs without a large expenditure of funds.

After a study, I suggested the following revisions:

Sign 14

Warrenton could be added to existing sign provided the existing arrow is replaced by a 10" x 16" arrow installed in a 45° position on the left end of the sign. All spacing in "Fort Stevens" legend would be reduced by 40 percent.

Sign 17

Warrenton could be added by adding one 12-inch extrusion to the sign. The extra panel would cause the sign support to be underdesigned. The support posts should have two feet cut off the length and the sign panel mounted five feet above the edge of pavement. The post above the hinge must be increased by one foot due to increased sign height.

They also wish to revise the last line of legend from "LEFT LANE" to "LEFT ¼ MILE". This would be done by reducing the legend to six-inch caps.

The preliminary sign plans were submitted to the Region II Office on January 18, 1977, with a reply requested from the Region, City and County by February 10, 1977.

During the next year, several phone calls were made to the Region Office requesting a reply to our January 18, 1977, letter. After no reply, on December 7, 1978, a letter was sent with a reply date of December 22, 1978.

REFERRED TO
Beard ✓ Stoudenmeyer
Cole Mann
Eriksen Watson
Heger Dorn Lau
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

Contains Recycled Materials
81-125-1307

With no reply from the City, County, District or Region, the preliminary sign plans were sent to the Final Design Engineer on February 23, 1979, to enable the contract plans to be drawn.

ELS:jrb

Attachment

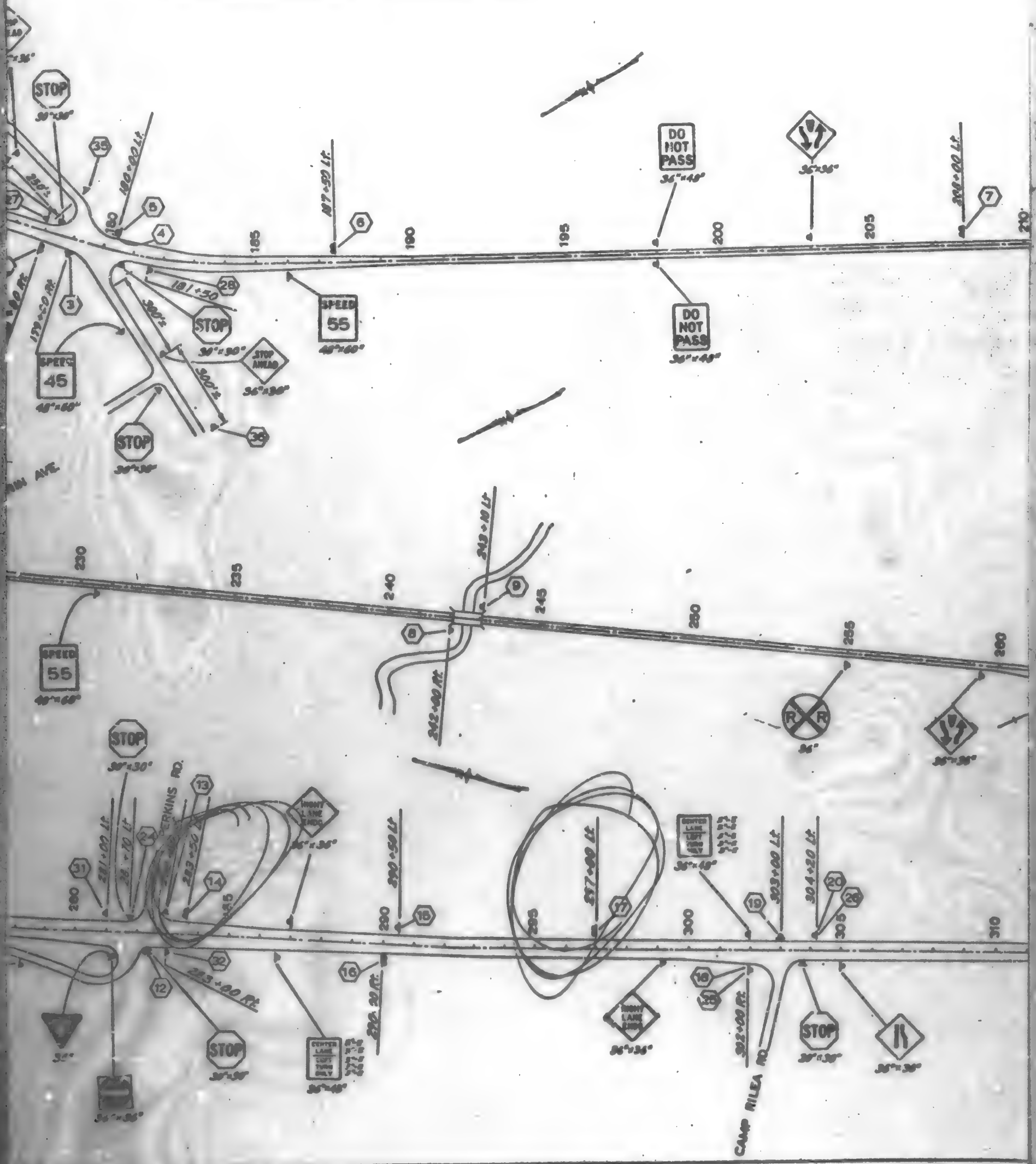
cc: C. O. Fredrickson
E. L. Everton
Chester A. Anderson
Don Stoudenmeyer

Don:
will you please consider
Redesigning the supports
Rather than the
Suggestion in this memo.
Thanks Dave
12/8/80

Accompanied By Dw

* = Existing Sign To Remain In Place

** = Remove Existing Sign And Wood Support.


STOP
30"x30"
SPEED
55
48"x60"
SPEED
45
48"x60"
DO NOT PASS
36"x48"
DO NOT PASS
36"x48"
STOP
30"x30"
STOP AHEAD
36"x36"
STOP
30"x30"
STOP
30"x30"
36"x36"
36"x36"
36"x36

SOUTH UNI

ASTORIA-CAMP RILE
OREGON COAST H
CLATSOP COUN

FED. ROAD Div. No.	STATE	PRO NUM
10	OREGON	F-2-

PERMANEN
SIGN DE

11'-0"
Fort Stevens
State Park
⇐
10"x35" Arrow
Sign (14) Type "A"

12'-0"
Camp Rilea
Military
Reservation
⇐
10"x35" Arrow
Sign (20) Type "A"

7'-0"
Warrenton
Hammond
NEXT LEFT
Sign (15) Type "A"

8'-6"
Seaside 4
Tillamook 57
8" Numerals
Sign (22) Type "A"

JCT Type "C"
26 101
Sign (34) (36) & (37)

12'-0"
Camp Rilea
Military
Reservation
Jct. 1/4 Mile
6" Fraction Numerals
Sign (16) & (21) Type "A"

6'-9"
⇦ WARRENTON 2
ASTORIA 7 ⇨
SEASIDE 9
Lettering One Side

TO Type "C"
24"x24" 26 101 30"x24"
26 Type "C"
Sign (23) Type "U"

101 Type "C"
30"x24"
Sign (39)
$1000 New face

11'-0"
Fort Stevens
State Park
LEFT LANE
Sign (17) Type "A"

3'-6"
PERKINS RD.
Lettering One Side (2-Required)
Sign (24) Type "U"

11'-0"
Warrenton
Fort Stevens
State Park
5'-0"
* Reduce spaces 40%
10"x16" Arrow
$250-300 (2 Holes left)

12'-0"
Camp Rilea
Military
Reservation
10"x35" Arrow
Sign (18) Type "A"

3'-6"
PIONEER CEMETERY
Sign (25) (35) Type "U"

11'-0"
Warrenton
Fort Stevens
State Park
LEFT 1/4 MILE
6'-0"
$1200 New face
$500 revamping (Holes left)

Type "C" WEST NORTH Type "C"
24"x24" 26 101 30"x24"
Sign (27) (29) & (31)

9'-0"
⇦ Astoria 7
Seaside 9 ⇨
8"x18" Arrows
8" Numerals
24"x24" 26 101 30"x24"
26 Type "C"
Sign (19) Type "A"

Type "C" EAST SOUTH Type "C"
24"x24" 26 101 30"x24"
Sign (28) (30) (32) & (33)

POST DATA & ITEM EXPLANATION

STATION	SIGN NO. 4/	TYPE OF SUPPORT 1/	POST		FOOTING			REMARKS
			SIZE & TYPE	LENGTH 2/	TYPE	LOCATION 3/	MIN. DEPTH	
168+00 Rt.	1L	B.S.P.	WS 12	16'-9"	5/	30'-0"	5/	
	1R	B.S.P.	WS 12	16'-9"	5/	36'-8"	5/	
178+00 Rt.	2L	B.S.P.	WS 12	17'-9"	5/	43'-6"	5/	Mount sign 8'-0" above edge of pavement
	2R	B.S.P.	WS 12	19'-9"	5/	51'-4"	5/	
179+00 Rt.	3C	S.P.S.B.	TS 7x7x3/16	18'-9"	5/	46'-0"	5/	Mount route shield assembly on post with Basic Route Marker Frame as detailed on S-3
188+00 Lt.	4SB	B.S.S.	TS 8x8x1/4	11'-3"	7/	30'-0"	7/	Mount signs on double sign support as detailed on Sheet No.2F-4
187+50 Lt.	6C	S.P.S.B.	TS 5x5x3/16	19'-6"	6/	30'-0"	6/	
208+00 Lt.	7L	B.S.P.	WS 8.5	10'-9"	5/	25'-9"	5/	Mount sign 11'-0" above edge of pavement
	7R	B.S.P.	WS 8.5	6'-9"	5/	23'-7"	5/	
242+00 Rt.	8C	S.P.S.	TS 4x3x3/16	11'-9"	6/	8'-0"	6/	
263+10 Lt.	9C	S.P.S.	TS 8x6x3/16	13'-9"	6/	30'-0"	6/	
"B" 14+00 Lt.	10L	B.S.P.	WS 8.5	15'-9"	5/	30'-0"	5/	
	10R	B.S.P.	WS 8.5	16'-3"	5/	35'-8"	5/	
272+50 Rt.	11C	S.P.S.	TS 4x3x3/16	7'-0"	6/	9'-0"	6/	Mount sign 10'-0" above edge of pavement
281+00 Rt.	12C	Wood	4x6 S4S	20'-0"	8/	See S-1	8/	
282+60 Lt.	13C	S.P.S.B.	TS 8x8x1/4	22'-6"	6/	30'-0"	6/	Mount sign 8'-6" above edge of pavement
283+60 Lt.	14L	B.S.P.	WS 12	20'-0"	5/	30'-0"	5/	
	14R	B.S.P.	WS 12	21'-6"	5/	36'-8"	5/	
290+30 Lt.	15C	S.P.S.	TS 8x3x3/16	12'-0"	6/	30'-0"	6/	
290+00 Rt.	16L	B.S.P.	WS 17	21'-6"	5/	30'-0"	5/	
	16R	B.S.P.	WS 17	22'-9"	5/	37'-2"	5/	
297+80 Rt.	17L	B.S.P.	WS 12	19'-3"	5/	30'-0"	5/	
	17R	B.S.P.	WS 12	21'-0"	5/	36'-8"	5/	
302+80 Rt.	18C	B.S.P.	WS 17	21'-0"	5/	30'-0"	5/	
	18R	B.S.P.	WS 17	23'-0"	5/	37'-2"	5/	
213+00	19C	S.P.S.B.	TS 7x7x3/16	18'-9"	5/	30'-0"	5/	Mount sign 8'-6" above edge of pavement. Mount Route Shield Assembly on post with Basic Route Marker Frames as detailed on Drwg. S-3.
304+20 Lt.	20L	B.S.P.	WS 17	22'-0"	5/	30'-0"	5/	
	20R	B.S.P.	WS 17	22'-6"	5/	37'-2"	5/	
317+00 Lt.	21L	B.S.P.	WS 15.5	18'-0"	5/	30'-0"	5/	
	21R	B.S.P.	WS 15.5	18'-6"	5/	37'-2"	5/	
328+75 Rt.	22C	S.P.S.	TS 6x3x3/16	13'-0"	6/	30'-0"	6/	
	23C	Wood	4x6 S4S	20'-0"	8/	See S-1	8/	
281+70 Lt.	24C	Wood	4x6 S4S	20'-0"	8/	See S-1	8/	
302+00 Rt.	25							Mount below sign 18 on secondary sign frame
304+20 Lt.	26							Mount below sign 20 on secondary sign frame
"B" 21+25	27C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
181+50 Rt.	28C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
223+00 Lt.	29C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
225+20 Lt.	30C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
281+00 Lt.	31C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
283+00 Rt.	32C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
316+00 Lt.	33C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
	34C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
	35C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
	36C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	
"B" 21+25	37C	Wood	4x6 S4S	16'-6"	8/	See S-1	8/	

1/ B.S.P. = Breakaway Sign Supports; S.P.S.B. = Single Post Slip Base; B.S.S. = Double Sign Supports; S.P.S. = Single Post Steel sup; and Wood = Wood Sign Post.
2/ Verify length in field.
3/ Distance from edge of pavement, face of guardrail or face of retaining wall to centerline of footing.
4/ L, C and R are locations of post on footing the sign from.
5/ See Bridge Drwg. No. 29404.
6/ See Bridge Drwg. No. 29101.
7/ See Sheet No. 2F-4
8/ See Bridge Drwg. No. 29111.
9/ No concrete footing required.

* Reduce post length to 17'-3" and 19'-0" and mount sign 5'-0" above edge of pavement.

*8999

Form FHWA 121 (1/80)

L

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

...E OREGON DIVISION - SALEM
UNITED STATES GOVERNMENT

memorandum

Subject: Project No. F-2-6(2)
S. Unit, Astoria-Camp Rilea Section (ROW)
Clatsop County
Ref to: PRO 6-2 (D E Swan Memo to G L Green)
11-21-80

Date: December 11, 1980

From: G. L. Green, Division Administrator

Reply to
Attn. of: HRW-OR/

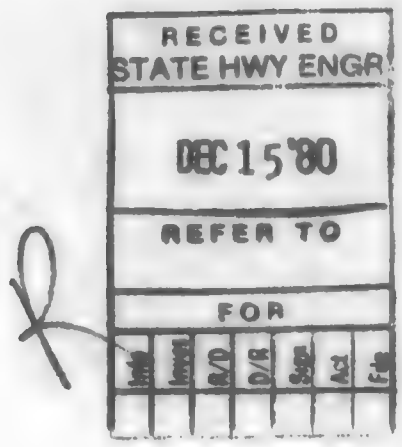
To: Mr. H. S. Coulter, State Highway Engineer
Oregon State Highway Division

Mr. D. E. Swan's November 21, 1980 request for authorization to utilize Federal funds in the acquisition of three excess property identified as files 51594, 51596, and 51597 is contrary to the State-wide policy selected by the State in respect to acquisition of excess properties.

If full access control of the subject files is justified, Federal funds could be authorized to participate in the acquisition of the existing access rights.

John D Wichman
for G. L. Green

cc:
OSHD (J B Boyd R/W)
OSHD (F Lowe R/W)
OSHD (D E Swan Proj Mgt.)



VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

November 20, 1980

IN REPLY REFER TO
FILE NO.:
CON 5
#8949

K Lines, Inc.
P. O. Box 1348
Lake Oswego, OR 97034

Attention: Austin Ingels

Gentlemen:

This will acknowledge receipt of a copy of a Notice of Claim dated November 10, 1980, addressed to Harry Claterbos Company. The Notice of Claim states that Roy L. Houck Construction Company, subcontractor, owes you $22,521 for transporting liquid asphalt in connection with construction of a new section of Highway 101 between Warrenton and Gearhart.

This appears to be in connection with the Harry Claterbos Company Contract No. 8949 for work on the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County.

The United Pacific Insurance Company furnished the bond on this contract. We will advise the surety and the prime contractor of the receipt of this claim and we will also forward it to the Secretary of State for filing.

Please advise this office when your claim has been satisfied.

RECEIVED
NOV 24 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

Sincerely,

Robert W. Gormsen
COMMISSION SERVICES

cc: United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, WA 98401

Harry Claterbos Co., JV
Rt. 1, Box 984
Astoria, OR 97103

11-21-80

Gentlemen —
The above claim against Houck Construction has been Paid in Full.

K-LINES, INC.
P. O. BOX 1549
LAKE OSWEGO, ORE. 97034

Austin Ingels

8949

L.

VICTOR ATIYEH
GOVERNOR

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

In Reply Refer to
File No.:

PRO 6-2

November 21, 1980

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: D. E. Swan
Operation Programming Engineer

SUBJECT: Project No. F-2-6(2)
S. Unit, Astoria-Camp Rilea Section (ROW)
Clatsop County

I hereby request authorization to proceed with the actual acquisition of the remainders on files 51594, 51596 and 51597 on the subject project at an estimated total cost of $32,000 with an obligation of $27,456 in federal funds. The areas to be acquired are as outlined in red on the enclosed sketch map and do not involve relocation assistance.

The enclosed copy of Mr. Lowe's memo of November 17, 1980 with attachment contains information in regards to the reasons for acquiring these property remainders.

CL:bke
Enc.

cc: J. Boyd
F. Lowe
General Files

Form 734-3122

5498 8949

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

FILED
NOV 21 1980
NORMA PAULUS
SECRETARY OF STATE

November 20, 1980

IN REPLY REFER TO
FILE NO.:
CON 5
#8949

K Lines, Inc.
P. O. Box 1348
Lake Oswego, OR 97034

RECEIVED
NOV 21 1980
NORMA PAULUS
SECRETARY OF STATE

Attention: Austin Ingels

Gentlemen:

This will acknowledge receipt of a copy of a Notice of Claim dated November 10, 1980, addressed to Harry Claterbos Company. The Notice of Claim states that Roy L. Houck Construction Company, subcontractor, owes you $22,521 for transporting liquid asphalt in connection with construction of a new section of Highway 101 between Warrenton and Gearhart.

This appears to be in connection with the Harry Claterbos Company Contract No. 8949 for work on the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County.

The United Pacific Insurance Company furnished the bond on this contract. We will advise the surety and the prime contractor of the receipt of this claim and we will also forward it to the Secretary of State for filing.

Please advise this office when your claim has been satisfied.

Sincerely,

Robert W. Gormsen
COMMISSION SERVICES

RECEIVED
NOV 24 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

kkr

cc: United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, WA 98401

Harry Claterbos Co., JV
Rt. 1, Box 984
Astoria, OR 97103

NOTED ON CARD
11-25-80 dmc

bc: Secretary of State - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

K LINES, INC.
P.O. BOX 1348
LAKE OSWEGO, OREGON 97034

NOTICE OF CLAIM

TO: Harry Claterbos Company
RFD #1 Box 984
Astoria, Oregon 97103

November 10, 1980

Notice is hereby given that the undersigned K-Lines Inc has a claim for labor performed for your sub-contractor, Roy L. Houck Construction Co, by transporting liquid asphalt from Douglas Oil Co of Portland Ore. to Houck Construction Co hot plant at Astoria, Oregon. This claim in the sum of $22,521 is against your Bond furnished by United Pacific Insurance Co., for work performed in connection with the construction of a new section of highway #101 between Warrenton and Gearhart, Oregon during September and October of 1980.

K-Lines, Inc.

by Austin Ingels
Austin Ingels

copy: Dept. transportation
Salem, Oregon

United Pacific Ins.
Seattle, Wa

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

#8949 11-17-80

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. 2-6(4)

STATE PROJECT NO. See below

FROM: G. L. Green, Division Administrator
FHWA - Oregon Division

PROGRAM NO.

ITEM NO. 90169

COUNTY NAME Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

11-21 orig

RECEIVED
STATE HWY ENGR
NOV 21 '80
REFER TO.
Maehrung
FOR

Info	Invest.	R/W	Dsgn	Spec	Est.	File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5/2/79	10/31/80	Primary 2	Primary 9

GENERAL LOCATION:

South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:

Salvage Value to Project

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☒ OTHER (Specify) See below

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

This will confirm the advance authorization date of 10/31/80, as requested in Mr. Keasey's letter of 11/12/80 as being in the public interest to credit to the project the salvage value of sign posts in amount of $20 Federal Funds $17.60. (SFO #11)

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
11/17/80	G. L. Green	for Division Administrator

FORM FR-1240 (REV. 6-70) EXISTING STOCKS OF FORM FR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1975—631-866

8949

STATE OF OREGON

HIGHWAY DIVISION

INTRAOFFICE MEMO

PRO 6

TO: C.O. Fredrickson
Region 2 Engineer

DATE: October 21, 1980

FROM W.H. Tebeau Bill
Operation Planning Engineer

SUBJECT: U.S. Route 101
Astoria-Camp Rilea Section
Oregon Coast Highway No. 9

copy
Com 6-1

Attached is a concept (description & map) dealing with that portion of the old alignment of the Oregon Coast Highway No. 9 that will remain upon completion of the new alignment. It is my understanding that the local jurisdictions do not desire responsibility for it, and this concept is based upon that premise.

Essentially, it is proposed that the Fort Stevens Highway No. 104 be extended from its present terminus southerly along the old alignment to the new alignment. The remainder of the old alignment from the present Fort Stevens Highway terminus easterly to the new alignment is proposed as the Fort Stevens Highway Spur. With this arrangement, the integrity of the Functional Classification and Federal Aid Systems will be maintained. No problems are anticipated with the Federal Highway Administration with this concept.

Please let me know if there are any operational problems. If you concur, we will take the necessary steps to so designate.

WHT:bke
Attachments

cc: L. Rulien
D.H. Moehring
L.E. George
Don Byard
Leo King

RECEIVED
STATE HWY ENG.
OCT 21 '80
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

Contains Recycled Materials
81-125-1307

SP*75003-1

DESCRIPTION OF FORT STEVENS HIGHWAY NO. 104

BEGINNING AT THE JUNCTION OF PACIFIC AVENUE WITH THE WEST CITY LIMITS OF HAMMOND (EAST BOUNDARY OF FORT STEVENS STATE PARK) THEN EASTERLY VIA PACIFIC AVENUE AND EAST PACIFIC AVENUE, THEN SOUTHERLY VIA N.W. WARRENTON DRIVE, NORTH MAIN AVENUE, SOUTH MAIN AVENUE TO THE JUNCTION WITH THE OLD ALIGNMENT OF THE OREGON COAST HIGHWAY (MILEPOINT 4.48); THEN SOUTHERLY VIA THE OLD ALIGNMENT OF THE OREGON COAST HIGHWAY TO THE JUNCTION WITH THE NEWLY CONSTRUCTED OREGON COAST HIGHWAY (STATE HIGHWAY NO. 9) BEING A DISTANCE OF APPROXIMATELY 6.03 MILES.

DESCRIPTION OF FORT STEVENS HIGHWAY NO. 104 SPUR

BEGINNING AT MILEPOINT 4.48 OF THE FORT STEVENS HIGHWAY (STATE HIGHWAY NO. 104) JUNCTION WITH THE OLD ALIGNMENT OF THE OREGON COAST HIGHWAY; THEN NORTHEASTERLY APPROXIMATELY .96 MILES TO THE JUNCTION WITH THE NEWLY CONSTRUCTED OREGON COAST HIGHWAY (STATE HIGHWAY NO. 9).

COLOR GUIDE FOR ATTACHED MAP

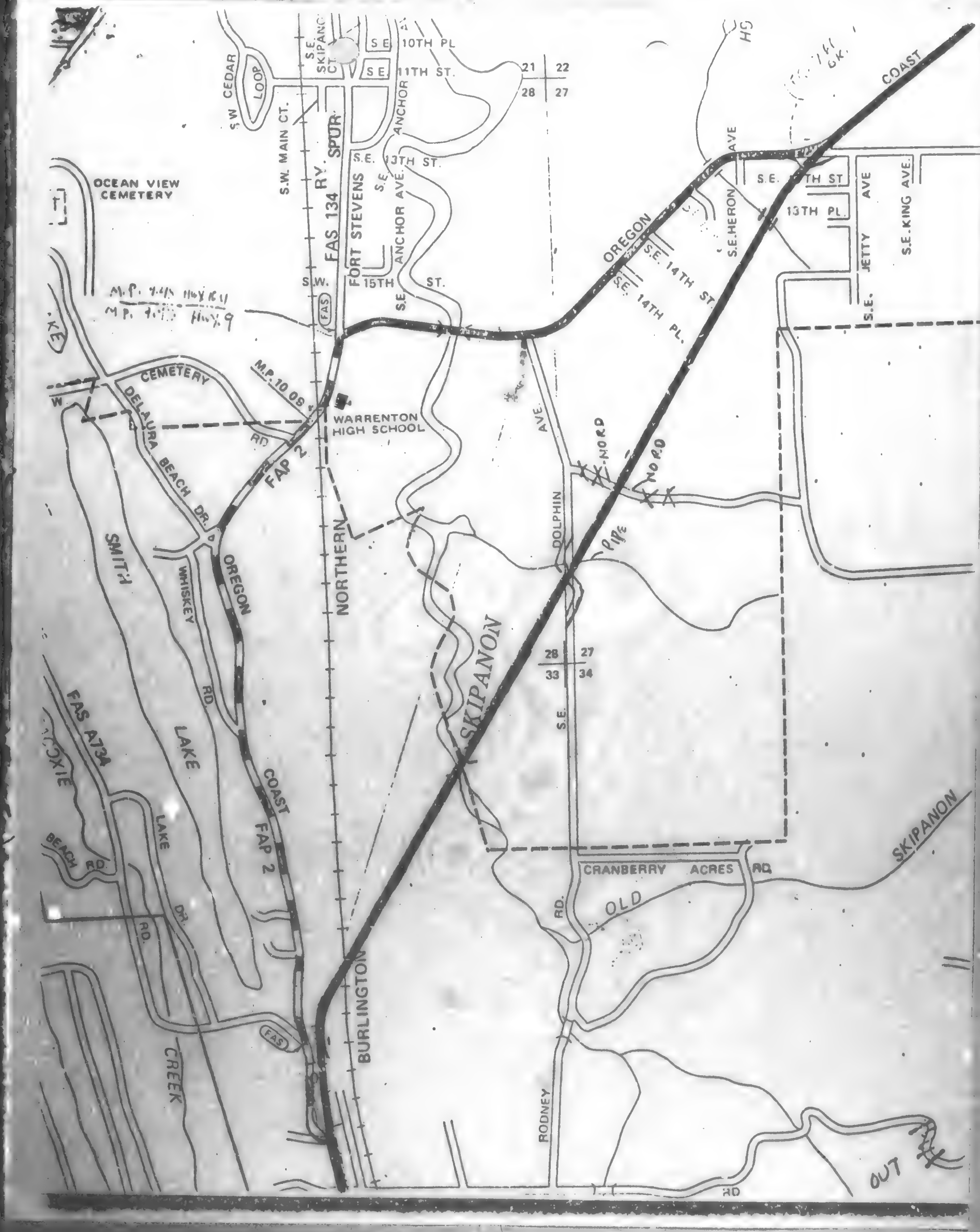
OLD ALIGNMENT OF HWY 9

NEW ALIGNMENT OF HWY 9

OLD ALIGNMENT OF HWY 104

PROPOSED ALIGNMENT OF HWY 104

PROPOSED ALIGNMENT OF HWY 104 SPUR


OCEAN VIEW CEMETERY
S.W. CEDAR LOOP
S.E. SKIPANON CT.
S.W. MAIN CT.
S.E. 10TH PL
S.E. 11TH ST.
S.E. ANCHOR AVE.
21
22
28
27
R.V. SPUR
FAS 134
FORT STEVENS
S.E. 13TH ST.
S.W. 15TH ST.
FAS
S.E. ANCHOR AVE.
M.P. 9.45 Hwy 101
M.P. 10.09 Hwy 9
CEMETERY
DELAURA BEACH DR.
M.P. 10.09
WARRENTON HIGH SCHOOL
RD
FAP 2
OREGON
COAST
NORTHERN
SMITH
WHISKEY
RD.
LAKE
FAS A734
BEACH RD
LAKE DR.
RD.
CREEK
FAS
BURLINGTON
OREGON
S.E. 14TH ST.
S.E. 14TH PL.
S.E. HERON AVE
S.E. 13TH PL
S.E. JETTY AVE
S.E. KING AVE.
COAST
AVE.
DOLPHIN
NORD
NORD
PIPE
28
27
33
34
S.E.
SKIPANON
CRANBERRY ACRES RD.
SKIPANON
RD.
OLD
RODNEY
RD
OUT

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

#8749

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
-6(2)

STATE PROJECT NO.
See below

FROM: G. L. Green, Division Administrator
FHWA, Salem, Oregon

PROGRAM NO.

COUNTY NAME
Clatsop

ITEM NO.
80157

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
Oregon State Highway Division
Salem, Oregon

1-30 only

RECEIVED
STATE HWY ENGR
JUL 30 '80
REFER TO
Machinery
FOR

Info	Inves	R/D	D/R	Sign	Act	File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	7-28-80	Primary 2	Primary 9

GENERAL LOCATION:

South Unit Astoria - Camp Rilea

GENERAL DESCRIPTION OF WORK:

Right of Way

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☐ OTHER (Specify)

☒ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of 7-2-80, you are now authorized to proceed with the actual acquisition of File No. 51244 as shown on R/W Map 8B-26-20 at a TEC of $7,000 - Federal funds $6,006.

Federal participation is limited to that right of way actually incorporated in the final location.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
7-28-80	G. K. Hansen	for Division Administrator

Form PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—721-818

July 2, 1980

PRO 6

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: D. E. Swan
Operation Programming Engineer

SUBJECT: Project No. F-2-6(2)
S. Unit Astoria-Camp Rilea Section (ROW)
Clatsop County

I hereby request authorization to proceed with the actual acquisition of file 51244 on the subject project at an estimated total cost of $7,000 with an obligation of $6,006 in federal funds. The right of way to be acquired is as outlined in red on the enclosed sketch map and is needed for prefix drainage of the roadway.

No relocation assistance is involved.

Funds for this request are available from releases in obligations on other projects by final voucher submissions or other actions.

CL:bke
Enc.

cc: F. Lowe

8747 C C 9

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

September 6, 1979

FROM: F. W. Yarbrough
Soils Engineer

TO: C. O. Fredrickson
Region Engineer
East Salem Highway Building

Attention: Gerald Wimer

SUBJECT: S. Unit, Astoria-Camp Rilea
[redacted]
Clatsop County
Control of Rate of Increasing
Height of Fill

This is to make a record of my representation to you that placing of fill on the subject section, between stations 181 and 187, may safely proceed at all times when the pore pressure measured in the piezometers in feet of water does not exceed the height of fill in feet above the piezometer tip. Application of this criteria may operate to waive the specification requirement that there be a waiting period (not placing fill) for thirty days prior to adding each 4-foot additional stage of fill above 10-feet height. Such waiver is acceptable because the only purpose of the specified waiting period is to permit the pore pressure to dissipate to tolerable level to avoid breaking the foundation. Establishing a fixed waiting period in the special provisions also permits the bidders to include their costs of waiting for pressure dissipation in their bids, and waiting time then does not become an extra cost during construction, unless it exceeds 30 days per stage.

I made a further suggestion to Chet Anderson that the pressure under the counterbalance at station 183 could be ignored and the control gaged exclusively by the pressure under the mainline fill. This option can be used wherever the counterbalance fill is less than 2-feet thickness. At station 186 where the counterbalance is about 6-feet thick, the pressure limitation in the piezometer under the counterbalance must be carefully observed so that the counterbalance remains effective in maintaining stability.

FWY:af

cc: Duane Christensen
Fred Ericksen
Frank Terpin
George Hopkins
W. R. Fretwell

Vertoog ✓
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
SEP 07 1979
ROAD DESIGN SECTION

cc: Erikson

Do Not File ☐
Return To
Bring Up
Action

8949

September 5, 1979

Mr. Heip Q. Quach, Vice President
Rainier National Bank
P. O. Box 49
Seattle, WA 98111

Re: Harry Claterbos Co., Joint Venture
Contract No. 8949
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway, Clatsop County

Dear Mr. Quach:

We have received our assignment of claim form signed by Harry Claterbos, Jr., partner of Harry Claterbos Co., Joint Venture, and a letter from Kim C. Leber, Fidelity and Surety Department, United Pacific Insurance Company, consenting to the assignment concerning the above contract.

Future payments on this contract will be made to you at the above address.

As requested, we have signed and are attaching three copies of your notice of assignment form.

Sincerely,

C. W. Mead
COMMISSION SERVICES

CWM:kkr
Attachments
cc: Harry Claterbos Co., JV
Rt. 1, Box 984
Astoria, OR 97103

bc: Dick Hacek
Jack Sollis

United Pacific Insurance Company
Attention: Kim C. Leber, Fidelity & Surety Dept.
Room 300, Denny Building
2200 - 6th Avenue
Seattle, WA 98121

United Pacific Insurance Company
Fidelity & Surety Department
P. O. Box 1216
Tacoma, WA 98401

Noted on Card, 9/5/79

Rainier National Bank
Central Office: 500 Olive Way, P.O. Box 40, Seattle, Washington 98111, (206) 621-5014

August 10, 1979

C. W. Head, Manager
Commission Services
131 Transportation Building
Salem, Oregon 97310

Subject: Contract No. 8949
Harry Claterbos Co.,Joint Venture

Dear Sir:

Enclosed are the original and three copies of Notice of Assignment of subject contract, together with a true copy of the Assignment and acknowledged copy of the Notice of Assignment from the surety Beeson and Company.

Please accept the Notice of Assignment as indicated, returning three copies to the attention of our Collateral Department. The other copy, the copy of the Assignment, and acknowledged copy from the surety, are for your files.

Thank you for your attention to this matter.

Sincerely,

E. Johnson

E. Johnson
For Manager

Enclosures

RAINIERBANK

RECEIVED
AUG 20 1979
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

NOTED
C. W. HEAD

NOTICE OF ASSIGNMENT

(Before filling out this notice, read carefully instructions on reverse side)

Date July 6, 1979

To Contracting Officer, State of Oregon
C.W.Head, Mgr. Commission Services
Transportation Building #131
Salem Oregon 97310

Re Contract Number 8949
made by the
State of Oregon
Highway Division
with Harry Claterbos Co., Joint Venture
(Name of Contractor)
Rt 1 Box 984
Astoria, OR 97103
(Address of Contractor)
for Realignment of Highway 101 West of Astoria, Oregon
Dated May 31, 1979

PLEASE TAKE NOTICE that moneys due or to become due under the contract described above have been assigned to the undersigned pursuant to the provisions of the Assignment of Claims Act of 1940 (Public No. 811, 76th Congress), approved October 9, 1940, as amended (Public No. 30, 82nd Congress) approved May 15, 1951.

A true copy of the instrument of assignment is attached hereto.

Payments due or to become due under such contract should be made to the assignee.

Please return to the undersigned and the three enclosed copies of this notice with appropriate notations showing the date and hour of receipt and duly signed by the person acknowledging receipt on behalf of the addressee.

Very truly yours,

RAINIER NATIONAL BANK
(Name of Assignee) Central Office

By
(Name and title of signing officer)
Vice President

PO Box 40

Seattle, WA 98111
(Address of Assignee)

Receipt hereby acknowledged of the above notice and a copy of the above mentioned instrument of assignment. These were received at a.m. / p.m. on 9-5-79 *(Date)*, 19

C.W. Head
(Signature)

On Behalf of Department of Transportation
Highway Division

(Name and title of addressee of notice)

NOTE 1469 R1-76

INSTRUCTIONS

In order to avoid delay, inconvenience, and possible impairment of the validity of assignments, these instructions should be followed carefully.

1. Under the terms of the Assignment of Claims Act of 1940, as amended May 15, 1951, written notice of each assignment of moneys due or to become due from the United States or from any agency or department thereof, *together with a true copy of the instrument of assignment,* must be filed with:

   (a) the contracting officer or the head of his department or agency,

   (b) the surety or sureties upon the bond or bonds, if any, in connection with such contract, and

   (c) the disbursing officer, if any, designated in such contract to make payment.

2. All blanks should be carefully filled in and the original and three signed copies of the notice should be forwarded to each of the parties with whom notice is required to be filed.

3. The addressee should acknowledge receipt of this notice of the three copies and return the same to the assignee.

4. One copy of each such receipt should be retained by the assignee for his own records and two copies of each such receipt should be attached to the first invoice, voucher, or other similar document submitted for payment.

5. It will not be necessary to forward additional copies of such receipts with requests for further payments, because the first copies will be duly recorded in the appropriate offices of the Government.

6. If there is no surety bond in connection with the contract giving rise to the claim which is assigned, it is not necessary to serve notice of assignment upon any surety.

7. If no disbursing officer is designated in such contract to make payment, it is not necessary to serve notice of assignment upon any disbursing officer.

8. To the *original* (but not the copies) of each notice of assignment, there should be attached one true copy of the instrument of assignment. This may consist of (a) a duplicate original containing all the signatures, seals, acknowledgments, etc., which appear on the original, (b) a complete photostatic copy of the original, or (c) a certified copy of the original, provided that such copy is accurate and complete in all respects including signatures, seals, acknowledgments, etc., which may be typewritten, and provided that the certificate to the effect that it is a true copy be executed by a notary public or other officer authorized by law to administer oaths.

9. CAUTION In order for the bank to have a perfected security interest it must comply with the filing provisions of both the Federal Assignment of Claims Act and the Uniform Commercial Code.

NOTICE OF ASSIGNMENT

(Before filling out this notice, read carefully instructions on reverse side)

Date . July 6, 1979

To . . . . Beeson And Company, Bonding Company
. . . . . 250 Central Building
. . . . . 810 Third Avenue
. . . . . Seattle, WA 98104

Re Contract Number 8949
made by the [redacted]
. . . . . State of Oregon . . . . . [redacted]
. . . . . Highway . . . . . Division
with . Harry Claterbos Co., Joint Venture
(Name of Contractor)
. . . . Rt. 1 Box 984
. . . . Astoria, Oregon 97103
(Address of Contractor)
for Realignment of Highway 101 West of Astoria, Oregon
Dated . May 31, 1979

PLEASE TAKE NOTICE that moneys due or to become due under the contract described above have been assigned to the undersigned pursuant to the provisions of the Assignment of Claims Act of 1940 (Public No. 811, 76th Congress), approved October 9, 1940, as amended (Public No. 30, 82nd Congress) approved May 15, 1951.

A true copy of the instrument of assignment is attached hereto.

Payments due or to become due under such contract should be made to the assignee.

Please return to the undersigned and the three enclosed copies of this notice with appropriate notations showing the date and hour of receipt and duly signed by the person acknowledging receipt on behalf of the addressee.

Very truly yours,

RAINIER NATIONAL BANK
(Name of Assignee)

By . . . . . .
(Name and title of signing officer)

. . . . . Vice President

. . . . . P. O. Box 40

. . . . . Seattle, WA 98111
(Address of Assignee)

Receipt hereby acknowledged of the above notice and a copy of the above mentioned instrument of assignment. These were received at . . . . . a.m. / p.m. on 8/13/79 (Date), 19 . .

. . . . . .
(Signature)

On Behalf of . . . . . .
BEESON & COMPANY
. . . . . 250 CENTRAL BUILDING
SEATTLE, WASHINGTON 98104
. . . . . .
(Name and title of addressee of notice)

NOTE 1469 R1-76

INSTRUCTIONS

In order to avoid delay, inconvenience, and possible impairment of the validity of assignments, these instructions should be followed carefully.

1. Under the terms of the Assignment of Claims Act of 1940, as amended May 15, 1951, written notice of each assignment of moneys due or to become due from the United States or from any agency or department thereof, *together with a true copy of the instrument of assignment,* must be filed with:

(a) the contracting officer or the head of his department or agency,

(b) the surety or sureties upon the bond or bonds, if any, in conhection with such contract, and

(c) the disbursing officer, if any, designated in such contract to make payment.

2. All blanks should be carefully filled in and the original and three signed copies of the notice should be forwarded to each of the parties with whom notice is required to be filed.

3. The addressee should acknowledge receipt of this notice of the three copies and return the same to the assignee.

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5. It will not be necessary to forward additional copies of such receipts with requests for further payments, because the first copies will be duly recorded in the appropriate offices of the Government.

6. If there is no surety bond in connection with the contract giving rise to the claim which is assigned, it is not necessary to serve notice of assignment upon any surety.

7. If no disbursing officer is designated in such contract to make payment, it is not necessary to serve notice of assignment upon any disbursing officer.

8. To the *original* (but not the copies) of each notice of assignment, there should be attached one true copy of the instrument of assignment. This may consist of (a) a duplicate original containing all the signatures, seals, acknowledgments, etc., which appear on the original, (b) a complete photostatic copy of the original, or (c) a certified copy of the original, provided that such copy is accurate and complete in all respects including signatures, seals, acknowledgments, etc., which may be typewritten, and provided that the certificate to the effect that it is a true copy be executed by a notary public or other officer authorized by law to administer oaths.

9. CAUTION In order for the bank to have a perfected security interest it must comply with the filing provisions of both the Federal Assignment of Claims Act and the Uniform Commercial Code.

Form 81-734-1804

STATE OF OREGON—HIGHWAY DIVISION

ASSIGNMENT OF CLAIM

FOR THE CONSIDERATION OF Three Million Nine Hundred One Thousand Five Hundred Eighty Seven Dollars ($3,901,587.) Dollars, to be paid, We hereby sell, assign and transfer the within claim for Contract 8949 for the realligment of Highway No 101 West of Astoria, Oregon

to Rainier National Bank, Central Office, Seattle, Washington and authorize and empower said Rainier National Bank, Central to act as agent for us and in our name, place and stead, to verify said claim and to sign, receipt for and receive any warrant which may hereafter be drawn on the Treasurer of the State of Oregon or the various counties within said State of Oregon in payment of said claim, and to indorse said warrant for payment by said Treasurer; provided, however, that nothing herein shall in any manner supersede or defeat the state's prior and superior claim and interest in and to said funds, and provided further that this assignment is subject to all of the provisions of ORS 366.420, and, if the same is honored, either in whole or in part, by the State Highway Division such action by the Division shall be controlled at all times by the terms of said statute, not only with respect to payments made but likewise with respect to future payments.

Witness my hand this 6 day of Aug, 1979.

Executed in the presence of us as witnesses:

Barbara Clatterbos

Linda Isaaks

Harry Clatterbos Co., Joint Venture

Harry Clatterbos, Partner

UNITED PACIFIC/RELIANCE INSURANCE COMPANIES
SEATTLE BRANCH: ROOM 300, DENNY BUILDING • 2200 - 6TH AVENUE
SEATTLE, WASHINGTON 98121 • AC 206 623-6080

August 31, 1979

Department of Transportation
Transportation Building
Salem, Oregon 97310

Re: Harry Claterbos, JV
Contract No. 8949
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway, Clatsop County

Gentlemen:

In reply to your letter of August 20, 1979, we hereby acknowledge and agree to the assignment of funds to Rainier National Bank for the above captioned project.

If you have any questions in regards to the above, please call or write.

Very truly yours,

UNITED PACIFIC INSURANCE COMPANY

Kim C. Laber

Kim C. Laber
Fidelity & Surety Department

RECEIVED
SEP 4 1979
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

NOTED
C. W. HEAD

9947

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. F-2-6-(4)

STATE PROJECT NO. See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 90169

COUNTY NAME: Clatsop

PROGRAM STAGE (Check) 2.

RECEIVED
STATE HWY ENGR
AUG 16 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

E-16

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	7-17-79	Primary 2	Primary 9

GENERAL LOCATION:

South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:

Furnish and install 2 piezometers at stations 185± and 186±

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION
☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS
☒ CONSTRUCTION - [redacted]

REMARKS

This will confirm the advance authorization date of July 17, 1979, as requested in Mr. Keasey's letter of July 23, 1979 as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 3 is approved for TEC NTE $5,000 - Federal Funds $4,405.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
8-13-79	E. Valaer	for Division Administrator

FORM PR-1240 (REV. 8-70) EXISTING STOCKS OF FORM PR-1240 (REV. 8-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—721-012

#8947

July 27, 1979

Board of County Commissioners
Clatsop County
Courthouse
Astoria, OR 97103

Attention: Norma Ensinger
County Clerk

MISC. CONTRACTS and
AGREEMENTS No. 6929

Gentlemen:

Attached for your records is a fully executed copy of a supplemental thoroughway agreement for the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Sincerely,

G. W. Read
CONSTRUCTION SERVICES

Enc

ASE.

bc Pam Harwell (conf. agree. att.)

TO: Oregon Transportation Commission

SUBJECT: Report of Actions Taken Under Delegated Authority

(1) Options or Other Documents Relating to Property Acquisition

Number	Name	Consideration
49395	Gerald R. and Marlene M. Hardy	$ 133,000.00
50121	Hugh Ross and Lora C. Newcomb	73,500.00
50354	Marjorie L. King	500.00
50465	Betty J. Patten	200.00
50482	Ladies Relief Society of City of Seattle	525.00
50539	James Hemenway, Inc.	200.00
54-10.40	Cruikshank, James W.	
54-10.22	Cruikshank, James W.	120.00
234-15.24E	Rone, Donald and Elaine	750.00
	8 Transactions	$ 208,795.00

(2) Grant of a residential access to Velma E. Gover et al at Sta. 670+40 on the Baker-Copperfield Hwy. in Baker County, File 27283.

(3) Grant of unrestricted use to Ray and Helen W. Passley for their access at Station 886+27 on the Myers Cr.-Brookings Section of the Oregon Coast Hwy. in Curry County, File 27877.

(4) Supplemental Throughway Agreement with Clatsop County for the South Unit, Astoria-Camp Riles Section of the Oregon Coast Highway. The supplemental agreement is necessary to clarify future maintenance responsibilities of a county road (Dolphin Avenue) lying within the city limits of Warrenton. (Local Government)

By your duly adopted delegation order, you authorized me in my official capacity to exercise certain authority on behalf of the Oregon Transportation Commission. Pursuant to that authority, and acting in accordance therewith for the Commission, I approve all of the actions listed above and report this action for your official records.

Dated this 16 day of July, 1979

APPROVED

STATE HIGHWAY ENGINEER

Date: 7-12-79 Date 7/12/79

Anthony Yturri, Chairman
Oregon Transportation Commission

8947

July 26, 1979

Help Q. Quach, Vice President
Rainier National Bank
P. O. Box 40
Seattle, WA 98111

Dear Mr. Quach:

You mentioned in your recent letter that you have been given the contract assignment on the Harry Claterbos Co., JV Contract No. 8949, Oregon Coast Highway in Clatsop County.

The United Pacific Insurance Company furnished the performance bond on this contract. Before we can honor the contractor's assignment to the bank, it will be necessary that we have in our possession a written statement from the surety consenting to the assignment.

Attached are five copies of an Assignment of Claim form. Please have the contractor execute the assignment form and return the original and one copy to this office, accompanied by a statement from the surety consenting to the assignment.

The Disbursing Officer for State of Oregon Highway Division contracts is Mr. Vernon Skoog, 434 Transportation Building, Salem, OR 97310.

The award and execution of contracts is handled in my office, 121 Transportation Building, Salem, OR 97310.

Sincerely,

C. W. Read, Manager
COMMISSION SERVICES

CWR:dda
Att.

bc Jack Sollis
Dick Hacek

Rainier National Bank
Central Office: 500 Olive Way, P.O. Box 40, Seattle, Washington 98111

July 18, 1979

Mr. C. W. Head
Commission Services
Transportation Building
Salem, Oregon 97310

Dear Mr. Head:

I would like to take this opportunity to introduce myself. My name is Hiep Q. Quach of Rainier Bank.

We have been given the contract assignment on the realignment of Highway 101 west of Astoria, Oregon, contract number 8949. We need to know the names and addresses of the Contracting Officer and the Disbursing Officer of the State of Oregon Highway Contracts.

Your assistance in this matter will be greatly appreciated.

Sincerely,

Hiep Q. Quach
Vice President

HQQ/jm

RainierBank

RECEIVED
JUL 23 1979
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

NOTED
C. W. HEAD

8949

July 5, 1979

TO: Glen L. Green
Federal Highway Administration

FROM: D. E. Swan
Operation Programming Engineer

C+A 6928
5/15/74

SUBJECT: Oregon Project No. RF-115(24)
So. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway, No. 9
City of Warrenton

Presented herewith are two fully-conformed copies of a Throughway Agreement covering preliminary engineering, right-of-way acquisition, utility relocation, construction, and future maintenance responsibilities along subject section.

An advance copy of this agreement was forwarded to you under the date of January 30, 1979. Sheet 5 of Exhibit A has been revised by removal of the orange coloring on Dolphin Avenue. It was discovered that this street is under the jurisdiction and control of Clatsop County.

Please give this matter your consideration and, if your concurrence is required, notify this office and original copies from the Oregon Transportation Commission files will be presented for the proper endorsements.

MEH:fhc
Attachments

cc: E. S. Hunter
J. L. Sollis
C. W. Head
D. E. Swan

8-1

U.S. DEPARTMENT OF TRANSPORTATION · FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. F-2-6(4)

STATE PROJECT NO. See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 90169

COUNTY NAME Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	6-18-79	Primary 2	Primary 9

GENERAL LOCATION:

South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:

Utility Adjustment

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS
- ☑ OTHER (Specify) Utility Adjustment Pacific Power & Light Co.

RECEIVED
STATE HWY ENGR
JUL 5 - '79

REFER TO Mcshane

FOR / Info | Inves | R/D | O/R | Spec | Act | File

REMARKS

As requested in Mr. Swan's letter of June 25, 1979, this will confirm the advance authorization date of June 18, 1979 to proceed with the actual adjustments for Pacific Power and Light Company's powerline relocation on an actual cost basis estimated to be $14,479.

I approve the Agreement with Pacific Power & Light Co.

Approval and participation for the portion of work authorized above is subject to the provisions of the Federal-aid Program Manual.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
7-3-79	G. L. Green	for Division Administrator

FORM PR 1240 (REV. 6-72) EXISTING STOCKS OF FORM PR-1240 (REV. 6-63) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

8949

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Oregon Division - Salem

SUBJECT: F-2-6(2)
S. Unit, Astoria - Camp Rilea
Oregon Coast Highway
Clatsop County
File 44037, Williamson

DATE: June 28, 1979

In reply refer to: HRW.1-OR

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer

Review of your records on the acquisition of file 44037 revealed that $15,700 was paid in addition to the $44,300 established as just compensation by the appraisal process. We found that the rationale set forth for expending the additional $15,700 was not adequate to support Federal-aid participation for the following reasons:

1. The consideration of approximately $10,000 as probable trial costs on the part of the defendant is not a valid consideration as they are not eligible for Federal-aid reimbursement.

2. The individual cost-to-cure items contained in the appraisal which were pointed out as being erroneous should have been considered in conjuction with other items in the appraisal such as: The documentation for the $8,500 damages and the value placed on the property to be acquired.

3. Consideration should have been given to the second appraiser's opinion that $34,850 was just compensation.

Please place the amount of $15,700 in a non-participating status. If additional supporting data can be provided we will re-analyze the settlement and our level of participation.

G. L. Green

cc:
OSHD (R S Hunter)
OSHD (J B Boyd)
(F C Lowe)

RECEIVED
STATE HWY ENGR
JUN 29 '79
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

5949

Department of Transportation
STATE HIGHWAY DIVISION

IN REPLY REFER TO
FILE NO

June 25, 1979

Mr. G. L. Green
Division Administrator
Federal Highway Administration
530 Center Street, N.E., Suite 100
Salem, OR 97301

Power Line Relocation
Pacific Power & Light Company
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
Project No. F-2-6(4)

Dear Mr. Green:

Here is a copy of an estimate of cost to adjust Pacific Power and Light Company's aerial power facilities dated April 3, 1979, and a sketch showing their proposed relocation.

A certification prepared by Don Bedford as to the Company's rights in the land occupied by their facilities is in our files.

A copy of the relocation letter to the Company dated February 27, 1979 was previously supplied your office.

An appropriate amended permit for the utility's proposed relocation will be issued.

The State is not entitled to a credit for expired service life under the provisions of Paragraph 9b (1) (b) of PPM 30-4, as the relocation involves a segment of facilities less than one mile in length and crossings of the project by the facilities.

There will be no betterment derived from the proposed adjustment of the Company's facilities.

Your approval of the actual cost agreement, as evidenced above, and confirmation of your advanced authorization to proceed with the work under the provisions of PPM 30-4 and 30-4.1 is requested. Estimated cost to the State is $14,479.

Yours truly,

D. E. Swan

RECEIVED
TECHNICAL SERVICES
JUN 25 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Mail | File

DES:mm
Enc.
cc: E. S. Hunter
Jack M. Cartwright
Don Bedford

Form 734-3128

8949

BEESON & Company, Inc.
Surety Bonds • Insurance
250 Central Building
Seattle, Washington 98104
622-6330

June 18, 1979

State of Oregon
Department of Transportation
Transportation Building
Salem-, Oregon 97310

Attention: C. W. Head, Commission Services

Re: Harry Claterbos Co., JV, Contractor
Contract No. 8949, S. Unit, Astoria-Camp Rilea
Section, OR Coast Highway, Clatsop County, OR
Your File No. 3786526

Gentlemen:

In accordance with your letter of June 13, 1979 addressed to the above contractor, enclosed you will find both copies of the above contract with the required corrections as to signatures of the principals.

Further, we have confirmed with the home office of the United Pacific Insurance Company that the necessary filing of Power of Attorney for John C. Beeson has now been made with the insurance commissioner's office of the State of Oregon.

Trusting all is now in order, we are

Sincerely yours,

Carol L. Bernard

Carol L. Bernard

CLB:bc
encl.

cc: Harry Claterbos Co., JV
Route 1, Box 984
Astoria, Oregon 97103
encl: Orig of DOT let of 6-13-79

RECEIVED
JUN 20 1979
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

NOTED
C. W. HEAD

8949

June 13, 1979

Harry Claterbos Co., J.V.
Rt. 1, Box 984
Astoria, OR 97103

Gentlemen:

We are returning both copies of Contract No. 8949 for work on the S. Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County.

It is necessary that both the President and the Secretary of both corporations sign the contract unless someone else has this authority. Please have the Secretary of Wayne Construction, Inc., and the Secretary of Claterbos, Inc., each sign the contract and bond pages of both copies.

If Donald W. Arntzen and Harry Claterbos, Jr., are authorized to sign the contract in behalf of their respective corporations, a certified copy of the bylaws or minutes of each corporation showing this authority to sign must be furnished the Transportation Commission.

The State Insurance Division has notified us that they cannot approve John C. Beesen signing as Attorney-in-Fact for United Pacific Insurance Company as there is no Power of Attorney on file for him. We cannot accept a Power of Attorney sent to us. All our contracts are cleared through the Insurance Division as to authority of the Attorney in Fact.

The Insurance Division does have an authorization for J. C. Beesen, but they were unable to tell by the signature if it is J. C. or John C. and the name printed below it indicates it is John C. Beesen. If the signature is of J. C. Beesen, please have the surety line out the printed name of John C. and print below the signature the identical name as signed.

If the signature is of John C. Beesen, please ask United Pacific Insurance Company to file a Power of Attorney for him with the Insurance Division, 158 - 12th Street N.E., Salem, OR 97310. There is a registration fee of $5.

If they do not wish to file a Power of Attorney, please ask them to have someone sign who has proper authorization and return the two copies of this contract to our office (121 Transportation Building, Salem, OR 97310).

Sincerely,

C. W. Read
COMMISSION SERVICES

dde
Enclosures

bc C. T. Kassey
Walt Hart
C. O. Fredrickson
Chester Anderson

8747 9

FORM 81.734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

July 10, 1979

FILE:

FROM: F. W. Yarbrough
Soils Engineer

SUBJECT: S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
Need for Sand Blanket under Fills

TO: C. T. Keasey
Construction Engineer

Attention: George Hopkins

Gerry Wimer has brought to my attention that the construction plans for the subject section do not provide for a sand blanket under all fill areas over the swamps to be crossed. This memo is to confirm that it is my opinion that a sand blanket is required over most of the swamp areas in order to provide support for the hauling and compacting equipment to construct the upper part of the fill properly; particularly, using the clay soil to be obtained from the cut through stations 190 to 210. It is a failure of my effort at the plans-in-hand review that the completed plans do not provide the sand blanket over all the swamp areas.

How thick the sand blanket needs to be depends on the softness of the swamp material, the weight of the hauling equipment, the amount of traffic on the lower lifts until additional lifts are added, the moisture content of the material to be used in the upper lifts. The Resident Engineer will have to simply experiment. Obviously the necessary thickness will be variable over the swamp area.

FWY:af

cc: Gerald Wimer
Duane Christensen
Frank Terpin
Fred Ericksen

REFERRED TO
Beard, Cole, Erikson, Hager, Steudenmeyer, Sample, Watson, Dorn, Leu
Return, Discuss, Do, File Copy, Due
BY FINAL DESIGN ENGINEER

Verstoeg, Anderson, Christensen, Olson, Sullivan, Terpin, Trout, Wakerlig

RECEIVED
JUL 12 1979
ROAD DESIGN SECTION

Do Not File
Return To
Bring Up
Action

8949 6-8-79

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. F-2-6(4)

STATE PROJECT NO. See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 90169

COUNTY NAME Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

RECEIVED
STATE HWY ENGR
JUN 14 '79
REFER TO
Machinery
FOR
Info | Inves | R/D | D/R | Sgn | Act | File

6-14 ok TJ

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	5-15-79	Primary 2	Primary 9

GENERAL LOCATION:

South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:

Railroad Relocation

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☒ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of May 18, 1979, I approve the Agreement with Burlington Northern, Inc., subject to the consideration of $1,000 under Section I being appraised and reviewed as a basis for Federal-aid participation.

You are now authorized to proceed with the work covered by the Agreement with Burlington Northern, Inc., approved by the Highway Division on May 15, 1979, at a total estimated cost of $84,023 - Federal Funds $74,024.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
6-8-79	G. K. Hammes	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1979—721-016

8947

June 1, 1979

City of Warrenton
City Hall
Warrenton, OR 97146

Attention: Gilbert O. Cramson
City Recorder

MISC. CONTRACTS and
AGREEMENTS No. 6228

Gentlemen:

Attached for your files is a fully executed copy of an agreement concerning construction of the S. Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway in Warrenton.

We are retaining a fully executed copy of this agreement for the Transportation Commission's files.

Sincerely,

C. W. Read
COMMISSION SERVICES

hkr

Attachment

bc: Dorland Swan (agreement attached)

NOTED
FRAN NEAVOLL

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

May 31, 1979

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM D. E. Swan
Federal Aid Engineer

SUBJECT S. Unit, Astoria-Camp Rilea Section
Project No. F-2-6(4)

Versteeg
Anderson
Christensen copy
Olson
Sullivan copy
Terpin
Trout
Wakerlig

RECEIVED
MAY 31 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring by ___/___/___
Action

Tentative concurrence is requested in the award of contract for the subject project. This bid was received on May 24, 1979 with Harry Claterbos Co. J.V. of Astoria submitting the low bid in the amount of $3,901,587.00. The low bid is $413,607.00 or 11.8% over our Engineer's estimate of $3,487,980.00. Two other bids were received in the amounts of $3,963,132.70 and $4,492,838.00.

We have reviewed our Engineer's estimate and for the following reasons we believe it is in the public interest to award the contract to the low bidder although the low bid is 11.8% over our estimate. We find our estimate was in error to the extent that the furnishing of surfacing aggregate did not include sufficient costs nor was the asbestos bonding included in the culvert pipe cost as mentioned below.

Adjustments to the Engineer's Estimate:

Stripping & Shooting	$1.15 Cu. Yd.
Haul	1.85 Cu. Yd.
*Efficiency Loss for coast work @ 10%	1.75 Cu. Yd.
	$4.75 Cu. Yd.

This revision would add $3.25 per ton to all bid items that have aggregates in them on this project. They are:

21.	Aggregate Shoulders	10,000 Ton	3.25	$ 32,500
22.	Cement Treated Base	63,350 Ton	3.25	205,887
24.	Class "B" A.C. Mix	23,800 Ton	3.25	77,350
				$315,737

NOTE: *Our method of computing estimates are made assuming the project is to be constructed here in the Willamette Valley and then a percentage factor is added (5%, 10% or 15%) depending upon where the project is located, and or difficulty of construction. In this case 10% was added.

The estimated cost of asbestos bonding on the culvert pipe was not included in our estimate for bid items 32 and 33 which would add an additional cost of $35,000 to our estimate.

These adjustments, $315,737 for aggregate and $35,000 for asbestos bonding, when added to our original estimate of $3,487,980 equals $3,838,717, is only 1.6% under the low bid of $3,901,587. We believe this is the best bid we can get for this project and to delay the award and take bid again would only add another months inflation factor to the project cost. We are requesting your concurrence in our decision to accept the bid of Harry Claterbos Co.

DAR:dmc
cc: J. H. Versteeg
E. L. Johnsen

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

8949 **LETTER OF APPROVAL AND/OR AUTHORIZATION** 5-17-79

FEDERAL AID PROJECT NO.: F-2-6(4)

STATE PROJECT NO.: See below

FROM:
G. L. Green, Division Administrator
FHWA - Oregon Division
Salem, Oregon

PROGRAM NO.:

ITEM NO.: 90169

COUNTY NAME: Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter,
State Highway Engineer, ODOT
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
MAY 24 79
REFER TO
FOR
Info. | Instr. | R/D | D/R | Sign | Act. | File

5-21 one g. to C.

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	5-17-79	Primary 2	Primary 9

GENERAL LOCATION:

South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:

Utility Adjustment

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☒ OTHER (Specify)
Utility Adjustment
City of Warrenton

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's May 14, 1979 letter you are authorized to proceed with the actual adjustments for the City of Warrenton's water main relocation at a TEC of $13,620 - Federal participation $11,681. Reimbursement on an actual cost basis is approved.

I approve the agreement with the City of Warrenton.

Approval and participation for the portion of work authorized above is subject to the provisions of the Federal-aid Program Manual.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-17-79	G. K. Hansen	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1975—631-695

8949

Department of Transportation
STATE HIGHWAY DIVISION

~~R9W~~ 18-2

IN REPLY REFER TO
FILE NO

May 16, 1979

RAILROAD COMPANIES
FILE No. 976

Burlington Northern, Inc.
1101 N. W. Hoyt Street
P. O. Box 571
Portland, OR 97207

Attention R. A. Osborne

Construction and Maintenance Agreement
South Unit Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
ODOT Agreement No. RR-976

Dear Dick:

Enclosed are the two Railroad copies of the subject agreement. They were signed on May 15, 1979, on behalf of the Department of Transportation by Mr. J. B. Boyd, Manager of the Right-of-Way Section.

Thank you for your cooperation in this matter.

Cordially,

Roger D. Trygstad
Railroad & Utility Engineer

RDT/seb
Enclosures
bc: G. L. Green w/copy
J. L. Sollis
J. B. Boyd
C. T. Keasey
C. W. Head w/our original
D. E. Swan w/2 copies
C. O. Fredrickson w/2 copies

NOTE TO C. O. FREDRICKSON: One copy for Resident Engineer. RDT

Boyd's 6-6-79 Report

6-14-79 noted in agrel. Boots for

NOTED C. W. HEAD

Form 734-3123

18444

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

ROW 18-4

May 14, 1979

In Reply Refer to File No.:

Mr. G. L. Green
Division Administrator
Federal Highway Administration
530 Center St., N.E., Suite 100
Salem, OR 97301

Water Main Relocation
City of Warrenton
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
Project No. F-2-6(4)

NOTED
E. S. HUNT

Dear Mr. Green:

Here is a copy of an estimate of cost to adjust the City of Warrenton's facilities dated March 26, 1979, and a sketch showing their proposed relocation.

A certification prepared by Don Bedford as to the City's rights in the land occupied by their facilities is in our files.

A copy of the relocation letter to the City dated February 20, 1979, was previously supplied your office.

An appropriate permit for the utility's proposed relocation will be issued.

The State is not entitled to a credit for expired service life under the provisions of Paragraph 9b (1) (b) of PPM 30-4, as the relocation involves two crossings of the project by the facilities.

There will be no betterment derived from the proposed adjustment of the City's water facilities.

Your approval of the actual cost agreement, as evidenced above, and authorization to proceed with the work under the provisions of PPM 30-4 and 30-4.1 is requested. Estimated cost to the State is $24,669.

Yours truly,

D. E. Swan
Federal-Aid Engineer

RECEIVED
TECHNICAL SERVICES
MAY 14 79
REFER TO
FOR
Lang | Jones | R/D | D/R | Sign | Ack | File

DES/JMC/seb
Enclosure
cc: E. S. Hunter
Jack M. Cartwright
Don Bedford

Form 734-9122

8919

Salem, Oregon
May 11, 1979

H. S. Coulter
State Highway Engineer

F I L E

Footpaths and Bicycle Trails
May 24, 1979 Bid Letting

S. Unit Astoria -
[illegible] File

This is an informational report to document the Highway Division's action taken with regard to establishing footpaths and bicycle trails as set forth in ORS 366.514. Bids will be opened May 24 on the following projects:

1. Broadway @ 16th Street (North Bend)
   Cape Arago Highway, Coos County
   Traffic Signals

   Footpaths or bicycle trails are not incorporated in this project as no new highway construction, reconstruction or relocation is involved.

2. Esplanade Street-Shasta Way
   Klamath Falls-Malin Highway, Klamath County
   Traffic Signals

   Same as No. 1.

3. N.E. Halsey Street at N.E. 223rd Avenue
   FAP No. IX-9867-2, Multnomah County
   Traffic Signals

   Same as No. 1.

4. Beaver Creek Bridge
   Powers Highway, Coos County
   Structure
   0 to 6-foot shoulders on approaches; 6-foot shoulders on structure

   Footpaths and bicycle trails will not be established under this project as per ORS Chapter 366, Section 2, subsection 2(c), which states, "footpaths and trails are not required to be established . . . where sparsity of population, other available ways or other factors indicate an absence of any need for such paths and trails."

5. Ochoco Highway-Ochoco Ranger Station
   Ochoco Ranger Station Road, Crook County
   Grading and Oiling
   28-foot roadway including 3-foot gravel shoulders

   Same as No. 4.

6. N. Umpqua River (Winchester) Bridge
   Pacific Highway, Douglas County
   Structures
   Redecking structure

   Same as No. 1.

7. Grants Pass Pavement Marking
   City Streets, Josephine County
   Pavement Marking

   Same as No. 1.

8. Jantzen Beach Information Center
   Pacific Highway, Multnomah County
   Earthwork, Paving and Building
   Sidewalks and ramps to be constructed for pedestrian and bicycle use

9. S.E. Morrison Bridge Ramp
   Pacific Highway East (Grand Ave.), Multnomah County
   Grading, Paving and Signals
   Existing 12-foot sidewalk on east side of Grand Avenue to remain in place

10. Deschutes River (Sherars) Bridge
    Sherars Bridge Highway, Wasco County
    Structure
    20-foot roadway with 4-foot shoulders on structure and approaches

    Same as No. 4.

11. Willamina Avenue-26th Avenue (Forest Grove)
    Main Street (Washington County)
    Grading and Paving
    40-foot street, curb-to-curb, with 5-foot sidewalks to be constructed

12. S. Unit Astoria-Camp Rilea
    Oregon Coast Highway, Clatsop County
    Grading and Paving
    Shoulders will be striped and signed as a bikeway

13. Bend S.C.L.-Murphy Road
    The Dalles/California Highway, Deschutes County
    Grading and Paving
    Shoulders will be striped and signed as a bikeway

14. N.E. Umatilla Street and N.E. 4th Avenue (Sutherlin)
    City Streets, Douglas County
    Grading and Paving
    5-foot sidewalks with pedestrian ramps to be constructed

15. Progress Interchange Off Ramp to
Scholls Ferry Road, Washington County
Grading, Paving and Signals

Same as No. 4.

16. Shaniko-The Dalles/California Highway
Sherman Highway, Wasco County
Oiling
32 to 40-foot roadway with 4-foot shoulders

Same as No. 4.

RPS:ge

cc: F. B. Klaboe
E. S. Hunter
D. G. Talbot
L. E. George
F. E. Terpin
George Bell
Don Harwell

8947

U. S. DEPARTMENT OF TRANSPORTATION — FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: F-[illegible]-6(4)

STATE PROJECT NO.: See below

FROM: Mr. G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.:

ITEM NO.: 90169

COUNTY NAME: Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
5/16/79
Orig to
Moehring

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	5-2-79	Primary 2	Primary 9

GENERAL LOCATION:

South Unit, Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:

grade, drain, pave and structure

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☒ OTHER (Specify)

R.R. Protective Services	$28,000
Perm. & Temp. Pavement Striping (S.F.)	3,100
On the Job Training	3,200
Temporary Erosion Control	10,000

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

After concurrence in award you are authorized to proceed with those items listed above as shown in your Estimate.

Mr. Swan's 4-30-79 request and certifying statements are accepted.

PS&E documents for the subject project have been reviewed and are approved at a total estimated cost of $3,972,914, Federal Funds $3,500,137.

A signed copy of the Title Sheet is returned herewith.

The above authorization is subject to payment to owners of Files 35423, 35424 and 39377 and securing physical possession prior to request for concurrence in award of contract.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-2-79	G. K. Hansen	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1970—031 465

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

8949 LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
RF-115(24

STATE PROJECT NO.
See below

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
F-51

COUNTY NAME
Clatsop

PROGRAM STAGE (Check)
☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engr - ODOT
State of Oregon
Salem, Oregon

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	5-1-79	Primary 2	Primary 9

RECEIVED
STATE HWY ENGR
MAY 31 79
REFER TO
FOR
Info | Instrs | R/D | O/R | Sign | Act | File

GENERAL LOCATION:
South Unit Astoria - Camp Rilea Section

GENERAL DESCRIPTION OF WORK:
Program Change

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
☐ ACQUISITION OF RIGHT-OF-WAY
☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
☒ OTHER (Specify) Program Change See below
☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of 5-16-79 I approve the revised Preliminary Engineering costs to a TEC of $190,000 with Federal participation limited to $148,560.

(The above costs cover period of 5-28-75 thru 5-1-79. Project received PS&E approval 5/2/79.)

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-1-79	G. K. Hansen	for Division Administrator

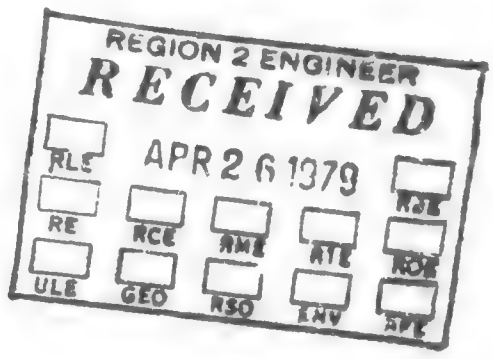
PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970-721-016

8949

CITY OF WARRENTON

WARRENTON, OREGON 97146
P. O. BOX 250 • PHONE 861-2233



25 April 1979

Phillip O. Stearns, Engineer
Region Federal Aid, Region 2
Department of Transportation
Oregon State Highway Division
2960 East State Street
Salem - OREGON - 97310

Dear Mr. Stearns:

Enclosed is one signed copy of a complete throughway agreement for the south unit, Astoria - Camp Rilea Section of the Oregon Coast Highway. We also enclose three copies of the signature page with the original signatures of the mayor and the city manager.

It is our understanding that the Dolphin Avenue road, which is shown on this agreement as city-maintained, will be correctly listed as a Clatsop County responsibility.

I discussed with you the possibility of an access along the north side of the highway Between SE Dolphin and SE 14th Street. It seems this is not possible as it would have been the responsibility of the property owners to have retained this access at the time they sold the property to the state. I would appreciate receiving confirmation on this matter.

I will respond to this paragraph

We are assuming you will return one signed copy of this agreement for the city's files.

Sincerely,

CITY OF WARRENTON

Gilbert Gramson

Gilbert G. Gramson
Auditor & Police Judge

PROJECT MANAGEMENT
PME ☐ CCE ☐ OM ☐
LGE ☐ TAE ☐ TEL ☐
APR 27 1979

GG:jwb File: PM LD
encls LAA LE CP

8949

ROW 18-2

Department of Transportation
STATE HIGHWAY DIVISION

April 10, 1979

Mr. R. P. Stafford
Real Estate Representative
Burlington Northern Property
Management Department
Lobby 2, 810 Third Avenue
Seattle, WA 98104

RAILROAD COMPANIES
FILE No. 976

Permit of Entry
South Unit Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
R/W File 35432
ODOT Agreement No. RR-976

Dear Mr. Stafford:

Attached is Burlington Northern's copy of the fully executed Permit of Entry relating to the subject project.

Once again, Dick, I have enjoyed working with you and am very grateful for your cooperation in this project.

Cordially,

Roger D. Trygstad
Railroad & Utility Engineer

RDT/seb
Attachment
cc: R. A. Osborne--B.N., Portland
bc: G. L. Green w/copy
J. L. Sollis
J. B. Boyd w/copy
C. T. Keasey
C. W. Head w/original
D. E. Swan w/copy
C. O. Fredrickson w/copy

6/14/79 on June report noted & agreed Head

5-2 note to add not on agn or may report

NOTED
C. W. HEAD

on June report

Form 61-704 3123

5949

March 15, 1979

Board of County Commissioners
Clatsop County
Courthouse
Astoria, OR 97103

Attention: Norma Hunsinger
County Clerk

MISC. CONTRACTS and AGREEMENTS No. 6929

Gentlemen:

Attached for your records is a fully executed copy of an agreement for construction of the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Sincerely,

C. W. Read
COMMISSION SERVICES

fhe

Att.

cc Gerald Wimer (agree. att.)

TO: Oregon Transportation Commission

SUBJECT: Report of Actions Taken Under Delegated Authority

(1) Options or Other Documents Relating to Property Acquisitions

Number	Name	Consideration
49777	Fry, George F., Jr.	$ 34,000.00
49800	Southern Pacific Transp. Co.	9,315.85
50038	Audrain, Bill & Pauline	
	Paxton, Dorothea E.	49,500.00
1-230.15	Linn County	50.00
20-4.96	Owens, John M.	720.00
39-25.89	Tharp, Virgil	100.00
161-12.07N	Molalla School District #35	100.00
200-18.70E	Wilkison, R.O. & Grace	300.00
	Eight Transactions	$ 94,085.85

(2) Agreement with the United States Government Department of Commerce National Oceanic and Atmospheric Administration to erect and maintain some radio transmission facilities for them in various locations throughout the State. Most of the locations are where the Highway Division already has existing transmission facilities. The Federal Government will pay all costs of erecting the facilities and all costs of maintaining the facilities. Federal Government will also supply all materials necessary for the erection of the facilities and the maintenance of the facilities. (Cooperative Agreement No. NA79AA-H-00036) (Legal Section)

(3) Agreement with Clatsop County for construction of the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway. The State will design, construct and maintain the facility using Federal Aid Primary Funds. The County has agreed to accept jurisdiction of relocated road connections and cooperate in the adjustment of utilities. There will be a companion agreement with the City of Warrenton for this project. (Local Government Section)

By your duly adopted delegation order, you authorized me in my official capacity to exercise certain authority on behalf of the Oregon Transportation Commission. Pursuant to that authority, and acting in accordance therewith for the Commission, I approve all actions listed above and report this action for your official records.

Dated this 13 day of March, 1979

Glenn L. Jackson

Glenn L. Jackson, Chairman
Oregon Transportation Commission

Ed Hunter
3-9-79

APPROVED

STATE HIGHWAY ENGINEER

Date 3/9/79

8949 ○ ○ 9

STATE OF OREGON

INTEROFFICE MEMO

Highway - Traffic DEPT. 378-6537 TELEPHONE

TO: D. O. Christensen
Final Design Engineer
ATTN: Lyle Watson

DATE: February 23, 1979

FROM: L. E. George
Traffic Engineer

SUBJECT: Approved Sign Study Plans
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

Attached are two prints of the approved sign study plans for the above-named section.

L. E. George
Traffic Engineer

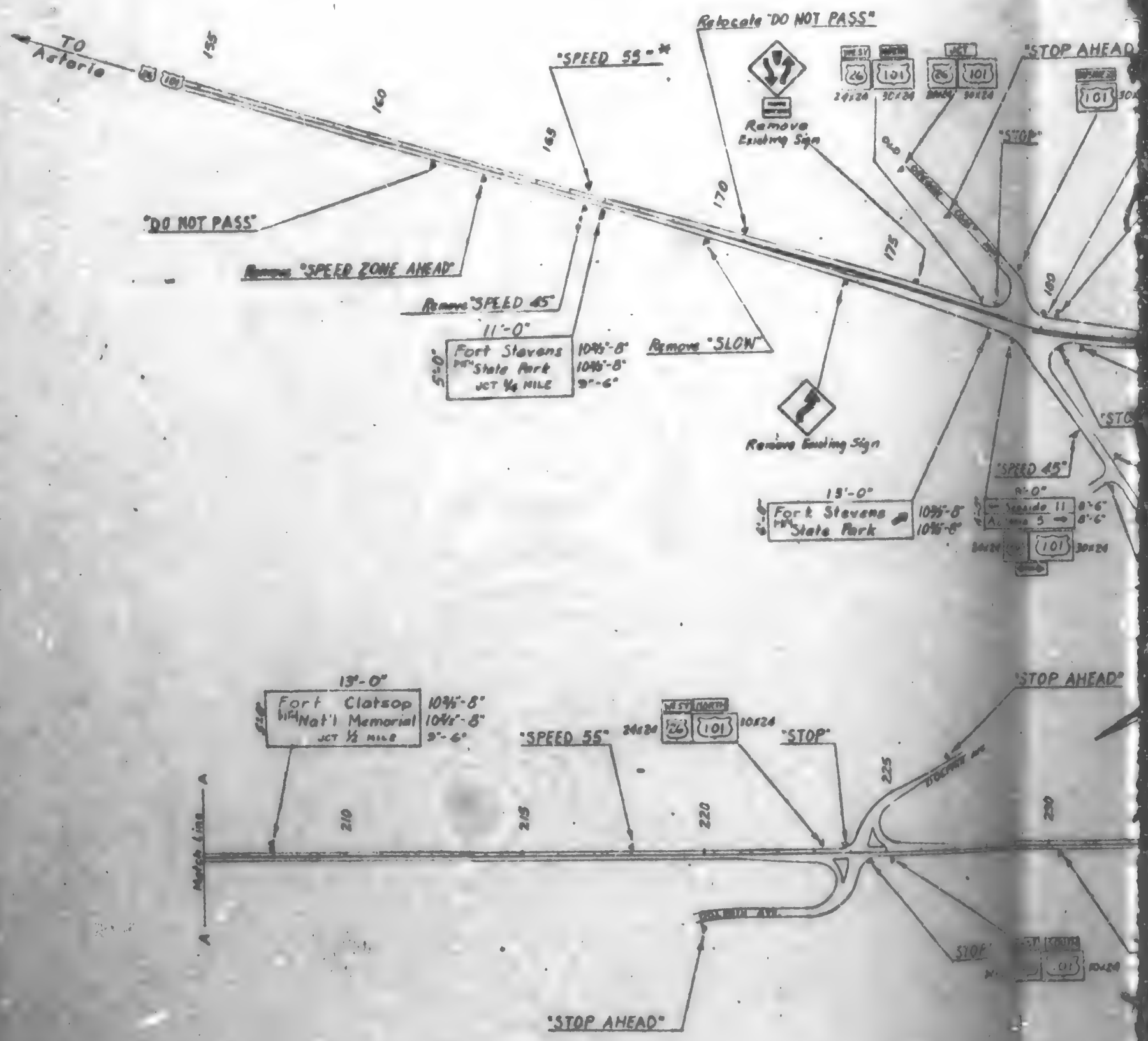
ELS:ds
Attachments

cc: F. T. Lacey
C. O. Fredrickson
E. L. Everton

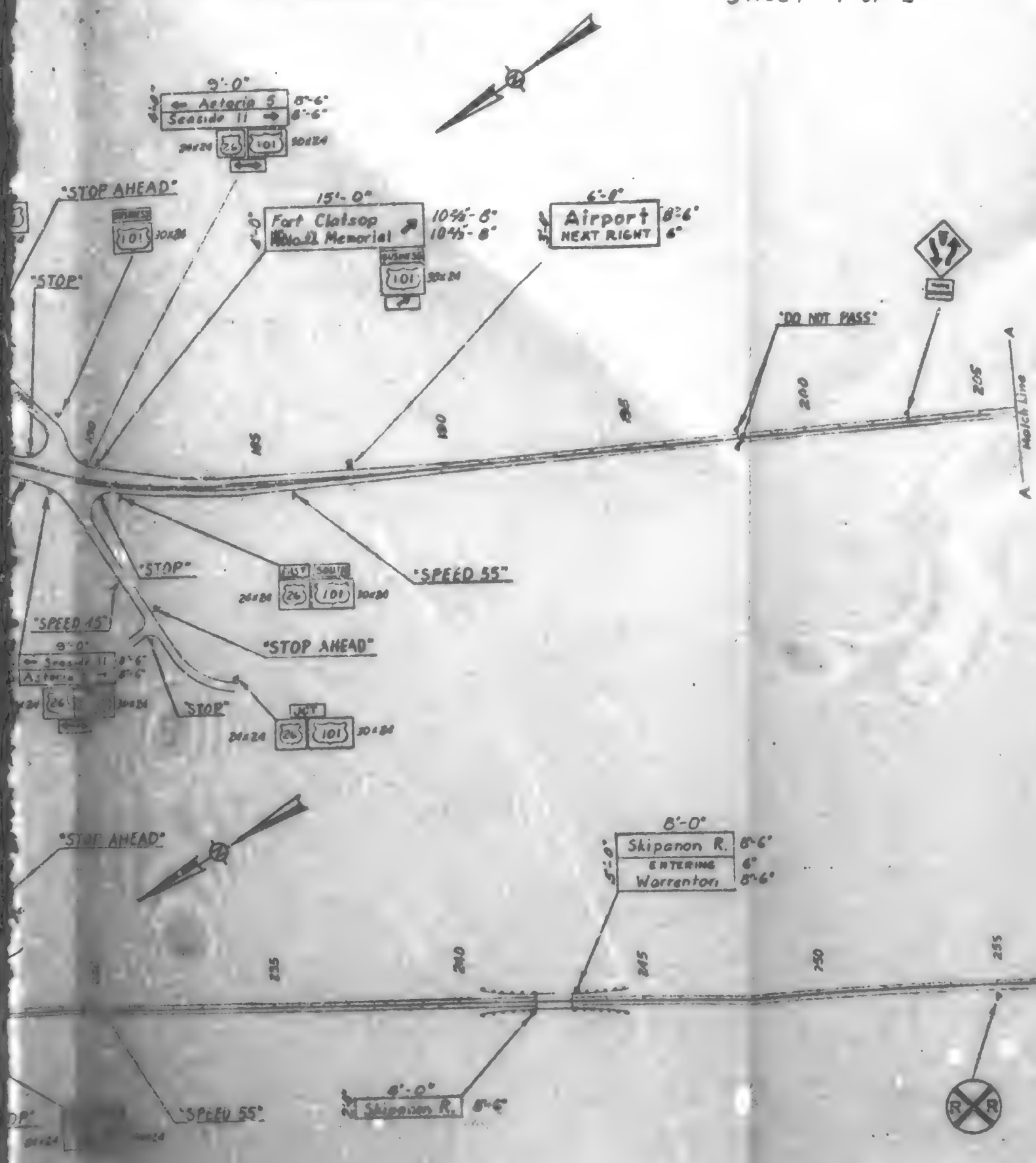
REFERRED TO
2 Beard WLB Stoudenmayer
Cole Sample
Eriksen Watson
Hager Dorn Lee
Record Course Do File Copy Due
BY: ENGINEER
1 plan returned by Beard

Vorstegg
Christensen DOC
George
Olson
Terpin
Sullivan
Scott
RECEIVED
FEB 26 1979
ENGINEERING SECTION

Trout
Do Not File ☐
Return To
Bring Up / /
Action


TO Astoria
"DO NOT PASS"
Remove "SPEED ZONE AHEAD"
Remove "SPEED 45"
"SPEED 55" *
Relocate "DO NOT PASS"
Remove Existing Sign
Remove "SLOW"
Remove Existing Sign
"STOP"
"STOP AHEAD"
"SPEED 45"
11'-0"
Fort Stevens
"State Park
JCT 1/4 MILE
15'-0"
Fort Stevens
"State Park
13'-0"
Fort Clatsop
Nat'l Memorial
JCT 1/2 MILE
"SPEED 55"
"STOP"
"STOP AHEAD"
"STOP AHEAD"
Match Line
* Existing sign to remain in place

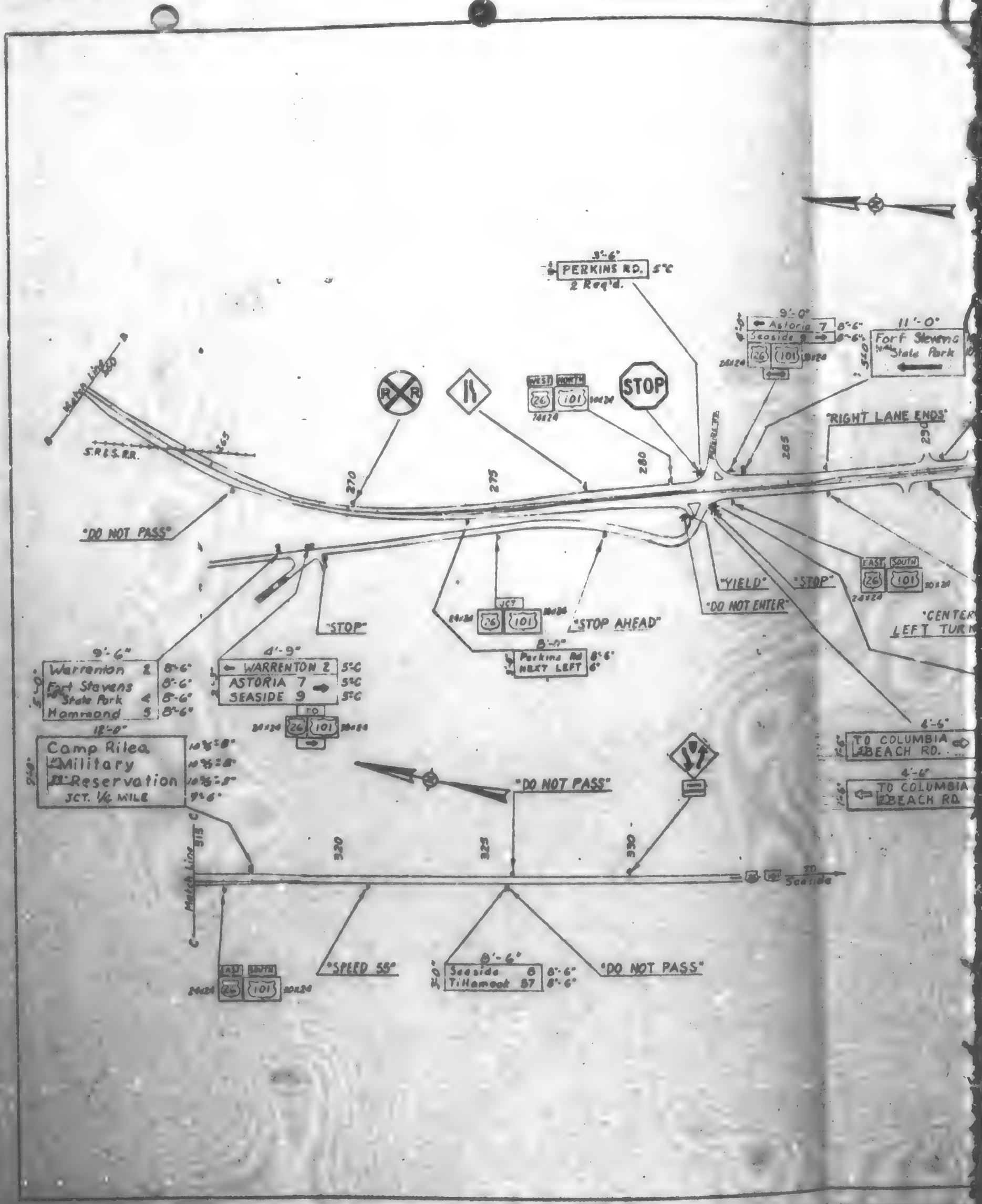
SHEET 1 OF 2



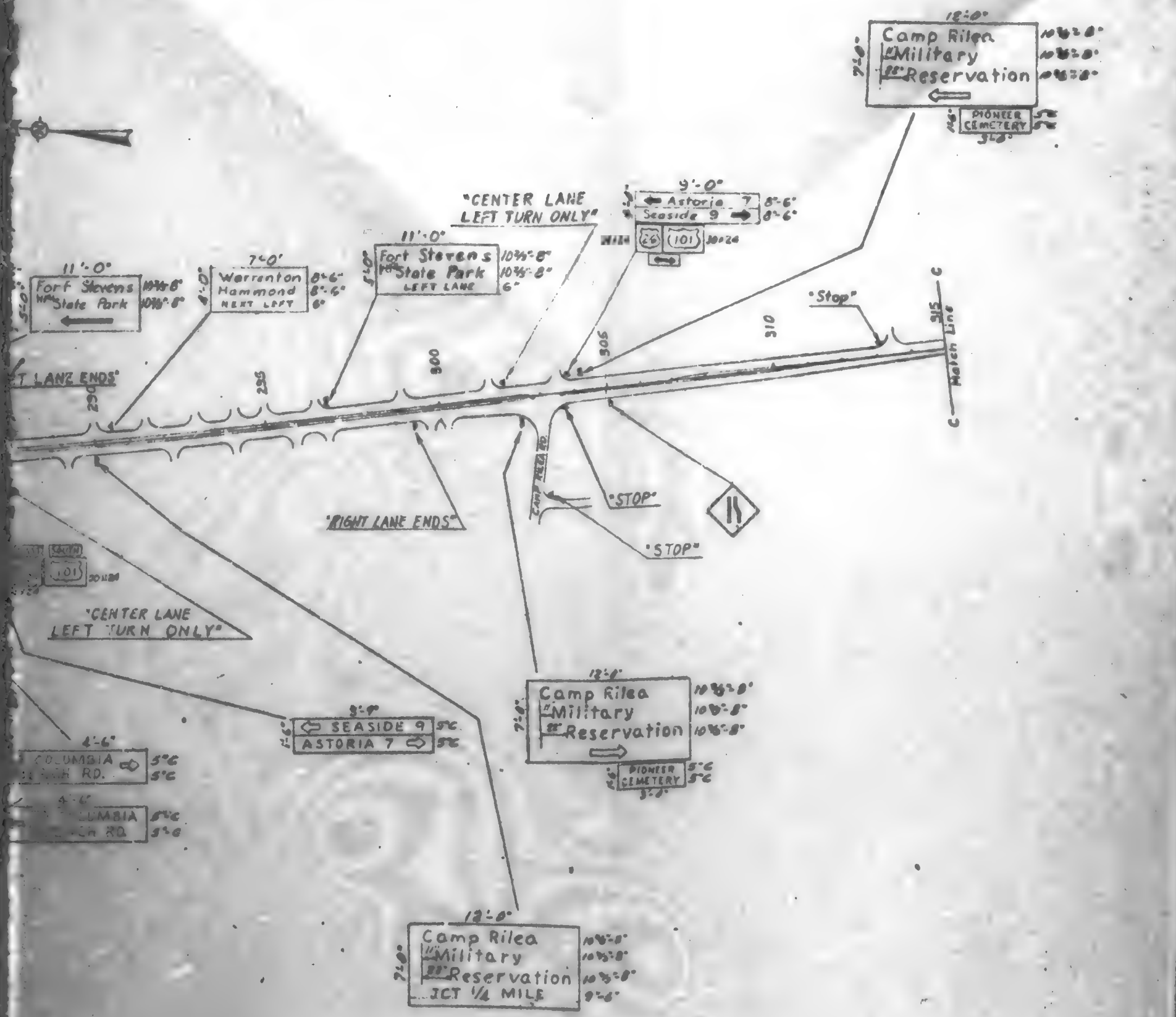
SIGNING PROJECT

ASTORIA ~ CAMP RILEA SECTION
OREGON COAST HIGHWAY ~ CLATSOP COUNTY

Drawn	1-14-77	
Approved	1-17-77	J. J. Carey
	1-27-77	
	8-21-77	


PERKINS RD. 5°C
2 Req'd.
9'-6"
Astoria 7
Seaside 9
8'-6"
8'-6"
11'-0"
Fort Stevens State Park
STOP
R R
WEST NORTH
26 101
"RIGHT LANE ENDS"
S.P.&S. R.R.
Match Line
"DO NOT PASS"
"STOP"
"YIELD"
"DO NOT ENTER"
"STOP"
EAST SOUTH
26 101
"STOP AHEAD"
JCT
26 101
8'-0"
Perkins Rd
NEXT LEFT
8'-6"
9'-6"
Warrenton 2 8'-6"
Fort Stevens State Park 4 8'-6"
Hammond 5 8'-6"
4'-9"
WARRENTON 2 5°C
ASTORIA 7 5°C
SEASIDE 9 5°C
TO
26 101
18'-0"
Camp Rilea Military Reservation
JCT. 1/4 MILE
"DO NOT PASS"
Match Line
To Seaside
"SPEED 55"
EAST SOUTH
26 101
8'-6"
Seaside 6 8'-6"
Tillamook 87 8'-6"
"DO NOT PASS"
4'-6"
TO COLUMBIA BEACH RD.
4'-6"
TO COLUMBIA BEACH RD.

SHEET 2 OF 2



SIGNING PROJECT

ASTORIA ~ CAMP RILEA SECTION
OREGON COAST HIGHWAY ~ CLATSOP COUNTY

Action	Date		Title
Submitted	1-18-77		
Approved	1-17-77	S. J. Lacey	
"	1-24-77		Traffic & Lighting
"			Asst. Hwy Engr
Accepted	2-21-77		

8949

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103

February 15, 1979

REGION 2 ENGINEER
RECEIVED
FEB 21 1979
RLE RE RCE R E RTE REA
ULE GEO ADO ENV REV

Phillip O. Stearns
Region Federal Aid Engineer
2960 S. E. State Street
Salem, Oregon 97310

Dear Mr. Stearns,

Having reviewed and acted in a regular Clatsop County Commissioners meeting, the Clatsop County Board of Commissioners have agreed to your plan with the following exception:

The short section of roadway or driveway west of Perkins Road at about station #282 is not acceptable to the County Road System. We have removed or erased the orange color from this section.

Enclosed are the three (3) signed agreements with the exception as described above.

Yours truly,

John Dooley

John Dooley, Roadmaster

JD:11

cc: City County Division
Attn: Don Harwell
Room 205
Transportation Bldg.
Salem, Oregon 97310

PROJECT MANAGEMENT
PME ☐ CCE ☐ OM ☐
LCE ☒ TAE ☐ OPE ☐
FEB 21 1979
File: PM 13 FA OP
TAM Holmes

8949

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: ROW 18-2

February 6, 1979

Salem, Oregon

FROM: Roger D. Trygstad
Railroad & Utility Engineer

SUBJECT: SXF 1055
Crossing No. 5A-108.00

TO: H. S. Coulter
State Highway Engineer

B U I L D I N G

Attached is a copy of Order No. 79-072 issued by the Public Utility Commissioner on January 30, 1979, relative to the above-subject matter.

RDT/seb
Attachment
cc: C. R. Burghardt, FHWA
E. S. Hunter
C. T. Keasey
R. L. Schroeder
C. O. Fredrickson (2)
E. L. Everton
R. P. Hamilton
J. L. Sollis
Bob Judson

NOTED
H.S.COULTER

RECEIVED
STATE HWY ENGR
FEB - 6 '79
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

ORDER NO. 79-072

ENTERED January 30, 1979

PUC CROSSING NO. 5A-108.00

BEFORE THE PUBLIC UTILITY COMMISSIONER

OF OREGON

SXF 1055

In the Matter of the Application of the STATE OF OREGON, by and through its DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION for the authority, pursuant to ORS 763.020, to construct a grade crossing of Oregon Coast Highway and Spokane, Portland and Seattle Railway (Burlington Northern, Inc.), Astoria Line, near Camp Clatsop, Clatsop County, Oregon.	ORDER

On September 19, 1978, the Oregon Department of Transportation, Highway Division, duly filed an application with the Commissioner seeking authority, pursuant to ORS 763.020, to construct a grade crossing of Oregon Coast Highway, U.S. 101, a road under its jurisdiction, and the main track and right-of-way of Burlington Northern, Inc., Astoria Line, near Camp Clatsop, Clatsop County, Oregon.

Comments and clarification on the application were made by parties as follows: PUC staff, by letter dated October 17, 1978; applicant by letter dated October 30, 1978, and Burlington Northern, Inc. by letter dated November 7, 1978.

Copies of the application were duly served upon Spokane, Portland and Seattle Railway (Burlington Northern, Inc.), Clatsop County, Oregon Department of Land Conservation and Development, and applicant. No objection by any party has been made to the granting of the application.

Applicant proposes to re-route a three-mile section of the Oregon Coast Highway (U.S. 101). The proposed new route will improve the roadway alignment on this portion of the highway. The project will entail construction of a new grade crossing, 56 feet in width, to consist of shoulders and four

RECEIVED
FEB 6 1979
RR & UTILITY UNIT

lanes of traffic arranged as follows: a four-foot paved shoulder, four 12-foot travel lanes and a four-foot paved shoulder. The crossing will be protected by cantilevered flashing lights and automatic gate signals. Estimated vehicular traffic volume will be 7,000 vehicles a day after completion of the project.

Due consideration has been given to all representations in the application. No matters within the scope of ORS Chapter 763 are in issue and no hearing will be required.

Based upon the application and the files of the Commissioner, it is found that the crossing is required by the public safety and welfare. A grade separation is not necessary at this location. The application should be granted upon the following terms and conditions.

IT IS THEREFORE ORDERED that:

1. Authority to construct the crossing as requested is hereby granted upon the condition that the physical construction of the crossing must be substantially in progress within two years of the effective date of this order. If this condition is not met, then the permission expires on that date.

2. Applicant shall:

   a. Construct that portion of the crossing lying outside lines drawn two feet outside each rail to accommodate a roadway section 56 feet in width, consisting of four 12-foot paved travel lanes and a four-foot paved shoulder on each side of the road;

   b. Bear all the cost of constructing the crossing and furnishing and installing the automatic signalization ordered herein;

   c. Furnish, install and maintain standard advance warning signs at appropriate locations on each approach to the crossing and advance warning pavement markings in each travel lane on its approach to the crossing, and bear all the cost thereof;

d. Furnish, install and maintain rural-type guardrails, 28 feet from the roadway centerline, on each roadway approach to the crossing, and bear all the cost thereof; and

e. Maintain that portion of the crossing lying outside lines drawn two feet outside each rail, and bear all the cost thereof.

3. Burlington Northern, Inc. shall:

a. Subject to reimbursement as provided herein, furnish and install two Commissioner's Standard No. 2B cantilevered flashing light signals, equipped with gongs, and two Commissioner's Standard No. 4 automatic gates signals, to be located at appropriate locations on each side of the crossing, said automatic signalization to be activated by a motion sensing device;

b. Subject to reimbursement as provided herein, construct that portion of the crossing lying between lines drawn two feet outside each rail, to accommodate a road 56 feet in width; and

c. Maintain the automatic signalization ordered herein and maintain that portion of the crossing lying between lines drawn two feet outside each rail, and bear all the cost thereof.

4. Each party shall notify the Commissioner upon completion of its portion of the project.

Made, entered and effective January 30, 1979.

PUBLIC UTILITY COMMISSIONER OF OREGON

CHARLES DAVIS
Public Utility Commissioner

bk

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

HIGHWAY DIVISION

TRANSPORTATION BUILDING, SALEM, OREGON 97310

ROW 18-2

October 30, 1978

Ms. D. Leigh Davis
Transportation Specialist
Rail Rate and Service Division
Public Utility Commission
Labor & Industries Building
Salem, OR 97310

SXF 1055

Dear Leigh:

In the Matter of the Application of the STATE OF OREGON, by and through its DEPARTMENT OF TRANSPORTATION, HIGHWAY DIVISION for the authority, pursuant to ORS 763.020, to construct a grade crossing of Oregon Coast Highway and Spokane, Portland and Seattle Railway (Burlington Northern, Inc.), Astoria Line, near Camp Clatsop, Clatsop County, Oregon.

In response to your October 17 letter, I offer the following comments:

I anticipate that the Commissioner's Standard No. 2B cantilevered flashing lights will be installed perpendicular to the highway. If they were to be installed parallel to the railroad, the gates would have to be over sixty feet long. The distance between the proposed cantilevered flashing light installations on either side of the crossing will be approximately 200 feet.

Cordially,

Roger D. Trygstad
Railroad & Utility Engineer

RDT/seb
cc: M. S. Coulter
C. T. Keasey
C. O. Fredrickson
J. L. Sollis

NOT H.S COLLECTED

8949

FORM 81-734-3080

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

January 22, 1979

FILE:

FROM: F. W. Yarbrough
Soils Engineer

TO: D. O. Christensen
Final Design Engineer

SUBJECT: S. Unit, Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County
Limit of Rate of Increasing
Height of Fills

The rate of increasing the height of fills on the subject section must be limited above ten feet height except where fill foundations are completely subexcavated to firm formation. The specifications may permit placing up to 10-feet height of fill without rate control. That is, as fast as suits the Contractor. No increase in height above ten feet for a period of 30 days is permitted. Then, there can be an increase of no more than 4-feet in any consecutive 30 days to the completion of the fill and surcharge. About 150 days are required to finish 300 feet of fill at station 186.

Piezometers should be installed in the foundation similar to what was done on the Marine Drive-Failing Street Section. Then, during construction, the actual rate of placing can be as the piezometer pressure permits. But, with the prescribed time rate above, the Contractor is warned that there will be delay and how much we expect. If it's less than prescribed, we both win. If it should turn out the necessary delay is more, he'll have to be compensated. Only 700' of fill on the job extends above 10 feet.

About half the length of fills on the job are to be surcharged. The specifications should require the surcharge to remain in place as long as possible, but in any case at least eight months.

Permission can be obtained from FHWA for the Region Geologist to purchase and install piezometers before construction begins. Region 1 has a pressure reading instrument to use which FHWA has already bought for us.

FWY:af

cc: Fred Ericksen
Ted Litchfield
Paul Galloway
Bill Fretwell
Carl Williams
Chet Anderson

RECEIVED
JAN 22 1979
ENGINEERING SECTION

REFERRED TO
BY FINAL DESIGN ENGINEER

8741

ROW 18-2

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

HIGHWAY DIVISION

TRANSPORTATION BUILDING, SALEM, OREGON 97310

September 14, 1978

Roger P. Campbell
Administrator
Railroad Division
Public Utility Commission
Labor & Industries Building
Salem, OR 97310

PUC Application
Oregon Coast Highway at
Spokane, Portland and Seattle
Railway
Clatsop County

Dear Roger:

Enclosed is an original and six copies of the application of the Department of Transportation, Highway Division, in the above-subject matter.

Two of the copies are for service upon Spokane, Portland and Seattle Railway (Burlington Northern), one copy for service upon Clatsop County and three copies for use by your office.

Cordially,

Roger D. Trygstad
Railroad & Utility Engineer

RDT/seb
Enclosures
cc: H. S. Coulter with copy
C. O. Fredrickson with copy
C. T. Keasey with copy
D. E. Swan with copy
J. L. Sollis with copy

RECEIVED
STATE HWY ENGR
SEP 18 '78
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

NOTED
H.S.COULTER

Form 734-3122 (Rev 7-77)

PUC Docket No. SXF _____

PUC Crossing No. _____

DOT-AAR Crossing No. _____

BEFORE THE PUBLIC UTILITY COMMISSIONER

OF OREGON

APPLICATION FOR AUTHORITY in connection with a proposed railroad-highway crossing project.

Formal Title:

In the matter of the application of Oregon Department of Transportation, Highway Division
(name of applicant)

for the authority, pursuant to ORS 763. 020 (020/030/040), to construct (construct/alter/change protection at/relocate/close) a grade (grade/separated) crossing

of Oregon Coast Highway
(name of street or highway)

and Spokane, Portland and Seattle Railway
(name of railroad company)

Seaside Branch
(name of railroad main or branch line or other trackage)

near (in/near) Camp Clatsop (name of city/town/rail station), Clatsop (name of county) County,

Oregon.

Check one of the following:

Allocation of funds from one of the following sources is requested or expected--

☐ State grade crossing protection account (ORS 763.270, .280, .290). Estimate of dollar cost to fund: $_____

☒ Federal-Aid Highway System funds.*

Federal Aid Highway Funds

☐ Other Federal funds.*

_____

☐ None of above.

*If Federal funding assistance is expected, please give appropriate federal statutory provision.

PUC Form 202 (31) 10-77
Replaces AX-1/75

BEFORE THE PUBLIC UTILITY COMMISSIONER

OF OREGON

APPLICATION FOR AUTHORITY in connection with a proposed railroad-highway crossing project

---

Check one of the following and answer all of Section I, plus all other parts of the application indicated beside that item.

(1) __X__ Construction of a new public highway/bikeway over an existing railroad at grade. Answer: Sec. I, II, V, as appropriate.

(2) ____ Construction of a new railroad track or tracks over an existing public highway at grade. Answer: Sec. I, II, V, as appropriate.

(3) ____ Construction of a new public highway over or under an existing railroad. Answer: Sec. I, III, V and #12 (a)(1) & (b)(1).

(4) ____ Construction of a new railroad track or tracks over or under an existing public highway. Answer: Sec. I, III, V and #12 (a)(1) & (b)(1).

(5) ____ Alteration/relocation of an existing public highway at an existing grade crossing. Answer: Sec. I, II & V.

(6) ____ Alteration or relocation of existing railroad trackage at an existing grade crossing. Answer: Sec. I, II & V.

(7) ____ Separation of an existing grade crossing. Answer: Sec. I, III, V and #12 (a)(1) & (b)(1).

(8) ____ Alteration of an existing separated crossing. Answer: Sec. I, III & V.

(9) ____ Removal of a track or tracks from an existing grade crossing. (If this is all that is involved, no application is required. Please notify us in writing.)

(10) ____ Addition of a track or tracks at an existing grade crossing. (See (6) above and answer as indicated.)

(11) ____ Addition of protective devices at an existing crossing. (Simplified form 203 (31) 10-77 can be used if no other alteration is involved at the crossing in question. Otherwise, answer as indicated under (5) above.)

(12) ____ Addition or removal of stop sign protection at an existing crossing. (Simplified form 204 (31) 10-77 may be used if this is all that is involved. Otherwise, answer as indicated under (5) above.)

(13) ____ Closure of an existing grade crossing. Answer: Sec. I, IV and the applicable portions of #'s 11, 12 & 13.

(14) ____ Other (please specify) _____

_____

If item (1), (2), (3), (4), (5) or (6) is checked, has a siting permit for a public transportation facility been obtained pursuant to ORS 197.415?

N/A (yes/no) If no, why not? _____

_____

Note: TO SAVE PAPER WHEN COMPLETING THIS FORM, IF IT IS FOUND THAT NO RESPONSES ARE REQUIRED ON ANY PARTICULAR PAGE(S), PLEASE OMIT SUCH PAGE(S) FROM YOUR APPLICATION. ALL SUCH OMISSIONS MUST BE SPECIFIED ON THE SIGNATURE PAGE.

IMPORTANT: PLEASE READ NOTE AT BOTTOM OF PRECEDING PAGE BEFORE COMPLETING THIS FORM.

NOTE TO APPLICANT: If assistance in completing this form is desired, please call 378-6659. On a question involving railroad data, the railroad involved can usually provide assistance as well:

Burlington Northern, Engineering Dept.	221-1300	(Portland)
Southern Pacific, Division Engineer	228-8181	(Portland)
Union Pacific, Division Engineer	288-8221	(Portland)
or--	208-232-4450	(Pocatello)

(Pocatello should be called for Union Pacific lines east of Huntington, including the line to Burns.)

SECTION I. (To be filled out completely by all applicants.)

1. Name of Applicant: Oregon Department of Transportation, Highway Division

   Address: State Transportation Building, Salem, OR 97310

2. Statutory authority under which this application is made: ORS 763. 020 (020/030/040)

   Note: If a new grade crossing is proposed -- ORS 763.020; if an existing grade or separated crossing is to be altered -- ORS 763.030; if a new separated crossing is proposed -- ORS 763.040.

3. Location of the proposed project:

   Railroad milepost _____

   City -- _____

   Nearest railroad station Camp Clatsop

   County Clatsop

   The proposed project is to be in the -- 1/4 of the -- 1/4 of Section 33, Township 8N, Range 10, W. M.

4. Name of public highway involved in this project:

   Oregon Coast Highway

   Name of public authority with jurisdiction over this highway:

   Oregon Department of Transportation, Highway Division

5. Name of railroad involved in this project: Spokane, Portland and Seattle Railway

   Seaside Branch

   (include name of branch, main line or other track)

6. List the proper parties of interest in this matter:

   a. Spokane, Portland and Seattle Railway (Burlington Northern)
   b. Oregon Department of Transportation, Highway Division
   c. Clatsop County
   d. _____
   e. _____
   f. _____

   Have you served each of these parties with a copy of this application? No (yes/no)

   If yes, please provide certificate of such service. (We would prefer to serve the application ourselves.)

7. Describe the project in detail (including its purpose):

Construct new crossing where new alignment of Oregon Coast Highway intersects Spokane, Portland and Seattle Railroad. Install Cantilevered flashing lights and gates.

8. Is the project contemplated required by the public safety, necessity, convenience and general welfare? Yes (yes/no)

If yes, why? To allow for the improvement to U. S. 101.

9. Is the crossing involved (to be) a separated crossing? No (yes/no)

SECTION II. Grade Crossings (If a separated crossing is involved in this application, answer 12 (a)(1) and 12 (b)(1), then go on to Section III.)

10. Is it possible or practical to construct a separated crossing at this location?

No (yes/no) If no, why not? Lack of horizontal clearance.

11. Physical description of the crossing:

a. The Highway

(1) Alignment--Describe the highway alignment for 1000 feet on each approach, both before and after the project:

Refer to attached map.

(2) *Width--The highway is N/A feet wide at the crossing at present; after completion of the project, it will be 56 feet wide at the crossing; consisting (from E (N or E) to W (S or W)) of:

At present--			After completion--		
Shoulder** of	N/A	feet	Shoulder of	4	feet
____ lane(s) at	____	ft. ea.	4 lane(s) at	12	ft. ea.***
Median of	____	feet	Median of	--	feet
____ lane(s) at	____	ft. ea.	____ lane(s) at	--	ft. ea.
Shoulder of	____	feet	Shoulder of	4	feet

***The two outside lanes are Bus and Truck Stop lanes.

* Measurement of highway width should be along a line perpendicular to the highway.
** If highway is curbed to crossing, "shoulder" is assumed to mean "parking area".

11.a. (Continued)

(3) Surface--	At present:	After completion:
Type of surface on traveled way:		
on approaches	N/A	AC
at crossing	N/A	AC
Type of surface on shoulders;	N/A	AC
Condition of surface:		
on approaches	N/A	new
at crossing	N/A	new
Is the highway curbed on the approaches?	N/A	No
Is there one or more sidewalks at this crossing?	N/A	No

If either answer to the above question is "Yes", please describe below, including width and location of each sidewalk:

_____

_____

(4) Gradient, going toward crossing on--	At present:	After completion:
N (N or E) approach	± N/A %	± +0.28 %
S (S or W) approach	± N/A %	± -1.892 %

(5) Nearest public roadway intersection on each approach--

(a) N (N or E) approach: 4000 ft; ADT 300

(b) S (S or W) approach: 2000 ft; ADT 300

Name of road or highway:

(a) Dolphin Avenue

(b) Ridge Road

Public authority with jurisdiction over road or highway:

(a) Clatsop County

(b) Clatsop County

(If different public authority than that with jurisdiction over road at crossing, please add name to list of parties of interest in this matter--see item 6 of this application form.)

Are traffic signals (to be) installed at either of these intersections?

(a) No (yes/no); (b) No (yes/no).

11.a. (Continued)

If yes to either, please explain below which intersection(s) is (are) (to be) signalized, and whether or not this signalization is (to be) interconnected with track circuitry on the railroad. If it is, are part-time turn restriction signs (to be) installed? (If there is to be interconnected circuitry, please include the interconnection and part-time turn restriction signs as items of protection proposed herein. If traffic signals at the adjacent intersection are to be installed in connection with this project, and if costs of same are to be partially borne by the railroad and/or the state grade crossing protection account, they should also be listed under item 14 herein.)

(6) Describe how the crossing is now protected. (For example: 2 crossbucks, 2 stop signs, 2 advance warning signs.) Please indicate which of these devices will be removed upon completion of this project:

N/A

b. The Railroad

	At present:	After completion:
(1) Number of tracks--	1	1

Name of each track from E (N or E) to N (S or W):

Main

(2) Angle of intersection-- N/A ° 35 °

If more than one track-highway angle exists, please give details below, track by track:

(3) Alignment--Describe the alignment of the railroad track(s) for 1000 feet in each direction, both before and after the project:

Refer to attached drawing.

11.b. (Continued)

	At present:	After completion:
(4) Nearest switch--		
E (N or E) of crossing:	N/A ft.	1000+ ft.
W (S or W) of crossing:	N/A ft.	1000+ ft.

12. Use of the crossing:

a. The Highway

(1) Average daily traffic volume--

At present: N/A ; After completion: 7000 ;

Expected 5 years from completion: 10,000 .

(2) Speed of vehicles (estimated 85th percentile speed)--

	At present:	Expected after completion:
300 ft. from crossing on N (N or E) approach:	N/A mph	55 mph
on S (S or W) approach:	N/A mph	55 mph
At crossing:	N/A mph	55 mph
Posted speed lim't on approaches:	N/A mph	none mph
(3) Direction of traffic flow:	N/A (N & S, etc.)	N & S

b. The Railroad

(1) Train movements-- (avg. per day)	At present:	Expected after completion:
Freight trains:	N/A	2
Switching movements:	N/A	0
Passenger trains:	N/A	0
(2) Speed of trains--		
Maximum allowable:	N/A mph	20 mph
Typical:	N/A mph	15 mph
Slowest Normal:	N/A mph	15 mph

13. Visibility at the crossing from the standpoint of the approaching motor vehicle operator:

a. Of approaching trains--

(1) From a "stop" position (approx. 18 feet from edge of nearest rail) on the . . .	The motor vehicle operator can see along the railroad . . .
N (N or E) approach:	9000 ft. to right; 950 ft. to left
S (S or W) approach:	1150 ft. to right; 9000 ft. to left

13.a. (Continued)

(2) From a "safe stopping distance" (see table below) on the . . .

The motor vehicle operator can see along the railroad . . .

N (N or E) approach: 900 ft. to right; 800 ft. to left

S (S or W) approach: 950 ft. to right; 800 ft. to left

If these sight distances will be changed on completion of the project, please explain below:

NOTE: TABLE OF SAFE STOPPING DISTANCES ("SSD")

Typical Approach Speed	"SSD"	Typical Approach Speed	"SSD"
10 mph	44 feet	35 mph	210 feet
15 mph	69 feet	40 mph	256 feet
20 mph	98 feet	45 mph	306 feet
25 mph	131 feet	50 mph	360 feet
30 mph	169 feet	55 mph	418 feet

b. Of the proposed protective devices--

(1) Will vision of the protective devices to be installed at the crossing be obstructed on the main approach road within 1000 feet of the crossing?

No (yes/no) If yes, please explain by what and at what point it will be obstructed:

(2) If roadside-mounted protective devices (such as "STOP" signs or Standard No. 2 flashing light signals) are to be installed at the crossing, is the approaching driver's vision of these devices likely to be totally or partially obscured by parked vehicles? No (yes/no)

If yes, explain how you propose to overcome this problem:

If no, why not?

No area for parking.
No reason to park.
Lights will be cantilevered.

14. List the number and types of protective devices to be installed at the crossing and on its approaches.

TYPES OF DEVICES (refer to rule OAR 860-42-060)

Standard No. 1M, multiple track sign
Standard No. 1P, reflectorized crossbuck for pedestrian crossings only
Standard No. 1R, reflectorized crossbuck
Standard No. 1S, vehicle stop sign (to stop vehicles)
Standard No. 1T, railroad stop sign (to stop trains)
Standard No. 2, flashing light signal
Standard No. 2B, cantilevered flashing light signal
Standard No. 2P, flashing light signal for pedestrian crossings only
*Standard No. 4, automatic gate signal
Standard stop clearance lines
Standard "EXEMPT" sign
Standard advance "EXEMPT" sign
**Standard part-time turn restriction sign
Standard "DO NOT STOP ON TRACKS" sign
Standard advance warning sign
Standard "STOP AHEAD" sign
Standard advance warning pavement markings
Standard highway guard rail
Non-mountable curb
**Traffic signals at adjacent intersection
Track circuitry to interconnect crossing signals with traffic signals at adjacent intersection
Traffic signals at crossing

* To be used in conjunction with Standard No. 2 or No. 2B signals. Please indicate which it will be.
** Please furnish description of traffic signal operation, including standard phasing and phasing upon train activation.

a. Protection type: #2B flashing lights and #4 gates

Number of such devices: 2 ea. ; To be located as follows: each side of crossing, 34 feet from centerline.

(1) Who will perform the installation: Spokane, Portland and Seattle Railway

(2) Estimated cost of installation: $ 75,000 ***

(3) Who will pay for said installation?

Name of Party	Percent of Cost
Oregon Department of Transportation, Highway Division	100

(4) Who will maintain these devices? Spokane, Portland and Seattle Railway

(5) Who will pay for said maintenance?

Name of Party	Percent of Cost
Spokane, Portland and Seattle Railway	100

*** Include cost of furnishing the protective device(s).

14. (Continued)

b. Protection type: Rural Guardrail

Number of such devices: 2 ; To be located as follows: each side of crossing in accordance with Oregon Department of Transportation Standard Drawing No. 2115.

(1) Who will perform the installation? Oregon Department of Transportation, Highway Division

(2) Estimated cost of installation: $ 3000 ***

(3) Who will pay for said installation?

Name of Party	Percent of Cost
Oregon Department of Transportation, Highway Division	100

(4) Who will maintain these devices? Oregon Department of Transportation, Highway Division

(5) Who will pay for said maintenance?

Name of Party	Percent of Cost
Oregon Department of Transportation, Highway Division	100

c. Protection type: Advance warning signs and pavement markings

Number of such devices: 2 each ; To be located as follows: each side of crossing

(1) Who will perform the installation? Oregon Department of Transportation, Highway Division

(2) Estimated cost of installation: $ 1000 ***

(3) Who will pay for said installation?

Name of Party	Percent of Cost
Oregon Department of Transportation, Highway Division	100

(4) Who will maintain these devices? Oregon Department of Transportation, Highway Division

(5) Who will pay for said maintenance?

Name of Party	Percent of Cost
Oregon Department of Transportation, Highway Division	100

NOTE: Add 14d, e, etc., on separate sheet, if needed.

15. Who will construct the crossing?

a. Between the rails and for a distance of two feet outside thereof:

Spokane, Portland and Seattle Railway

Estimated cost of this portion: $ 15000

Note: These costs include rail renewal, compromise joints, ballasting, ties, tie plates, angle bars, crossing materials and installation of all these items.

b. Remainder of crossing area: Oregon Department of Transportation, Highway Division

16. Who will pay for such construction and in what proportion?

a. Between the rails and for a distance of two feet outside thereof:

Oregon Department of Transportation, Highway Division

b. Remainder of crossing area: Oregon Department of Transportation, Highway Division

17. Who will maintain the crossing?

a. Between the rails and for a distance of two feet outside thereof:

Spokane, Portland and Seattle Railway

b. Remainder of crossing area: Oregon Department of Trarsportation, Highway Division

18. Who will pay for said maintenance?

a. Between the rails and for a distance of two feet outside thereof:

Spokane, Portland and Seattle Railway

b. Remainder of crossing area: Oregon Department of Transportation, Highway Division

19. If automatic protective devices are (to be) installed at the crossing, please answer the following:

a. What type of device will be used to activate them?

(Each track at the crossing should be covered in the answer.
Example: Main track--predictor units; Spur tracks--island circuits.)

Motion Sensor

b. If automatic gates are to be installed, are there any overhead wires or other obstacles which might impair the operation of the gate arms?

No (yes/no) If so, describe the obstacles, identify the owner and make the owner a party of interest in this matter.

SECTION III. Separated Crossings

20. At the crossing, the highway will be _____ (above/below) the railroad tracks.

30. (Continued)

Route B: _____

_____

31. Do either of these alternate routes involve use of another railroad-highway crossing? If so, which other crossing, how is it protected, and approximately how much traffic will be added to it if the crossing closure is granted?

Route A: _____

_____

Route B: _____

_____

32. Will emergency services to or from the area served by the crossing to be closed be adversely affected? _____ (yes/no)

If yes, please include the appropriate Fire Department or Fire District and the appropriate local police agency as parties of interest in this matter under item 6 herein, and explain how much the effect will be and whether or not other steps can be taken to overcome this adverse effect:

_____

_____

_____

33. What protective devices are currently installed at the crossing to be closed?

_____

_____

34. Will a pedestrian and/or bicycle crossing be maintained at the site of the crossing to be closed? _____ (yes/no)

35. Who will close the crossing? _____

36. Who will bear the expense of closing the crossing? _____

_____

37. Who will maintain the barricades, if any, at the closed crossing?

_____

38. Who will pay for said maintenance? _____

_____

SECTION V. -- (To be completed by all.)

39. Upon completion of this project, will it be possible to close any existing grade crossing(s) in the area? No (yes/no)

If yes, list and explain: _____

_____

_____

39. (Continued)

If no, explain why not: Required for access and expedient movement of traffic

40. Other items of construction and cost distribution:

None

* *

41. Are the maps and drawings required by the Division IV Commissioner's Rules and Regulations attached to this application? Yes, Map No. 8B-23-20 (yes/no)

PLEASE FURNISH SUFFICIENT COPIES OF THE APPLICATION AND DRAWINGS TO ENABLE US TO SERVE ALL PARTIES OF INTEREST (INCLUDING STATE HIGHWAY DIVISION, COUNTY, AND REGIONAL COUNCIL OF GOVERNMENTS) PLUS AN ORIGINAL AND ONE COPY FOR OUR USE.

The following enumerated page(s) have been omitted from this application because no response to the questions and/or information requested thereon is required in this matter: Pages Eleven and Twelve

Applicant prays for an order permitting construction in accordance with this application, or for such other and further order as may be proper in the premises.

Dated at Salem, Oregon this 12th day of September, 1975.

R. L. Schroeder
(Applicant)

James L. Sokol
(Attorney)

I, R. L. Schroeder, being first duly sworn, say that I am the applicant in the within entitled cause, and that the foregoing application is true, as I verily believe.

R. L. Schroeder

STATE OF OREGON)
County of) ss.

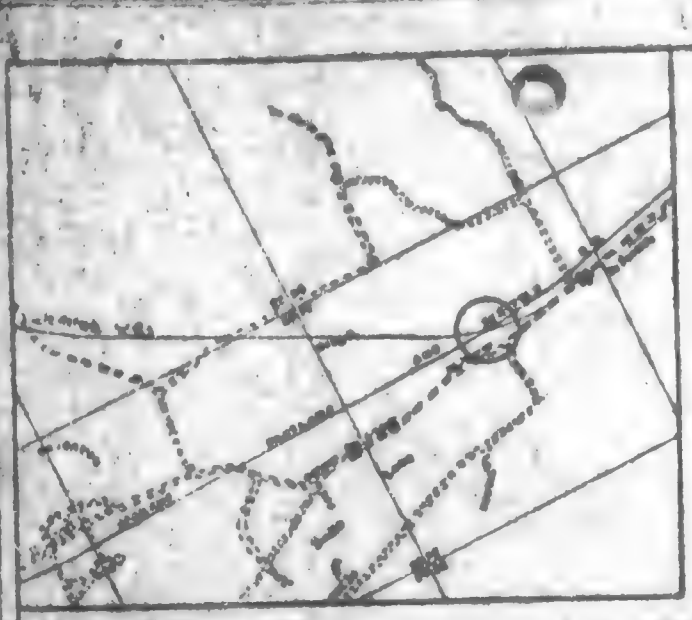
Subscribed and sworn to before me this 12th day of September, 1975.

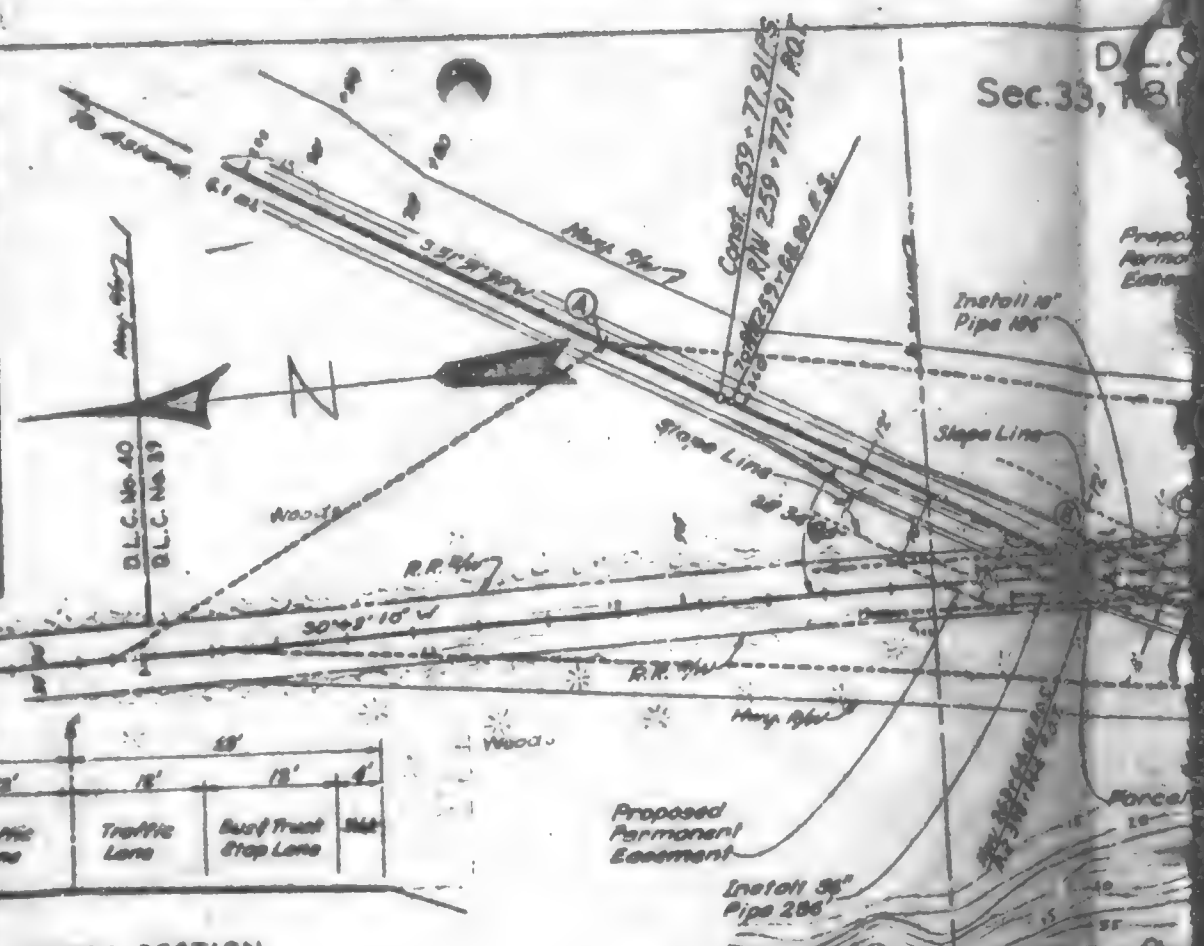
James L. Sokol
(Notary Public for Oregon)

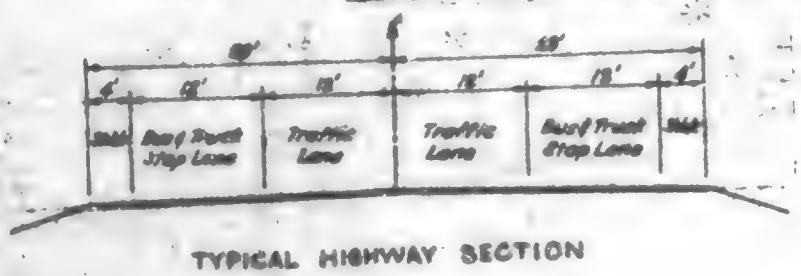
My Commission Expires: 12-8-80

PUC Form 202 (31) 10-77
Signature Page

88-S3-SO

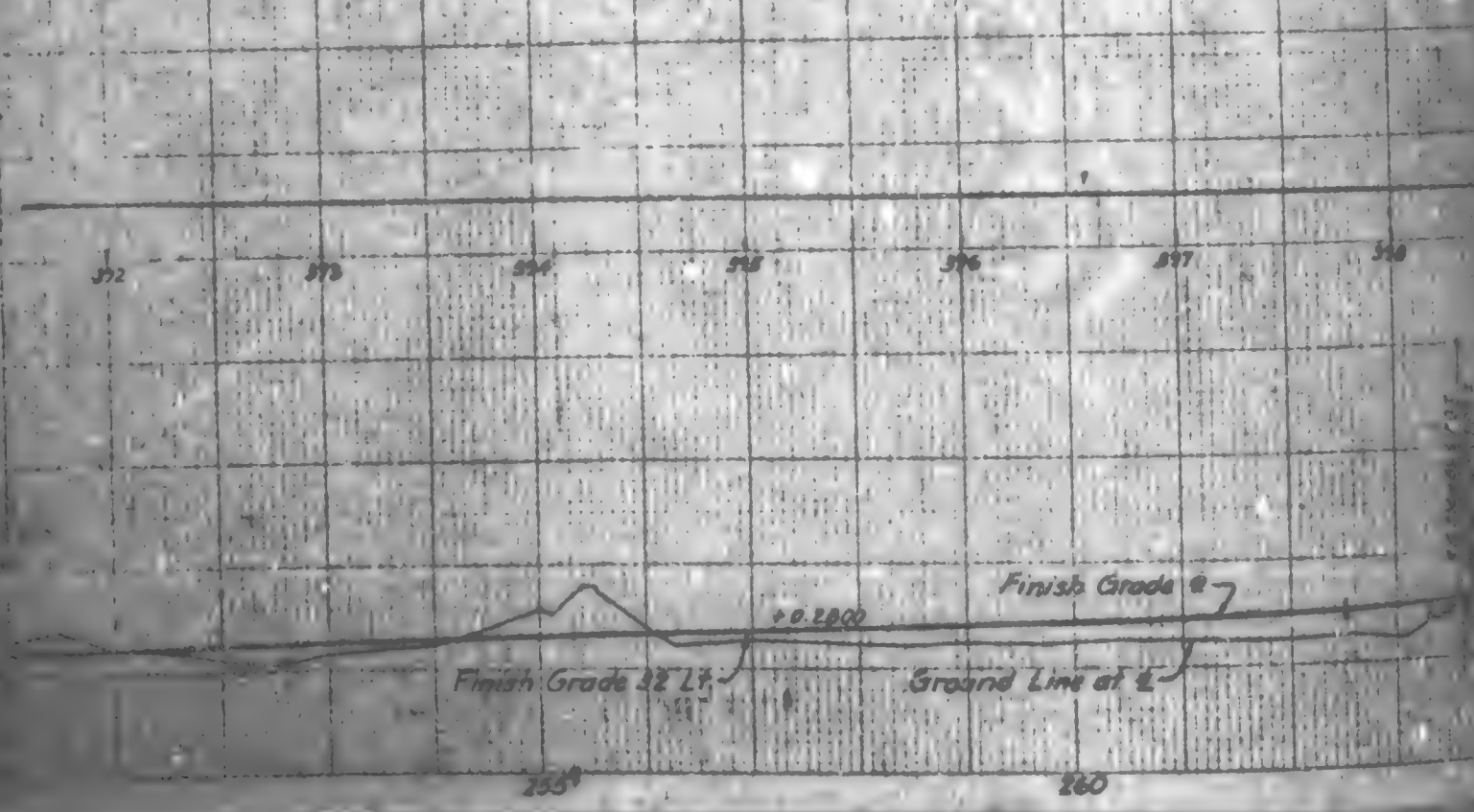




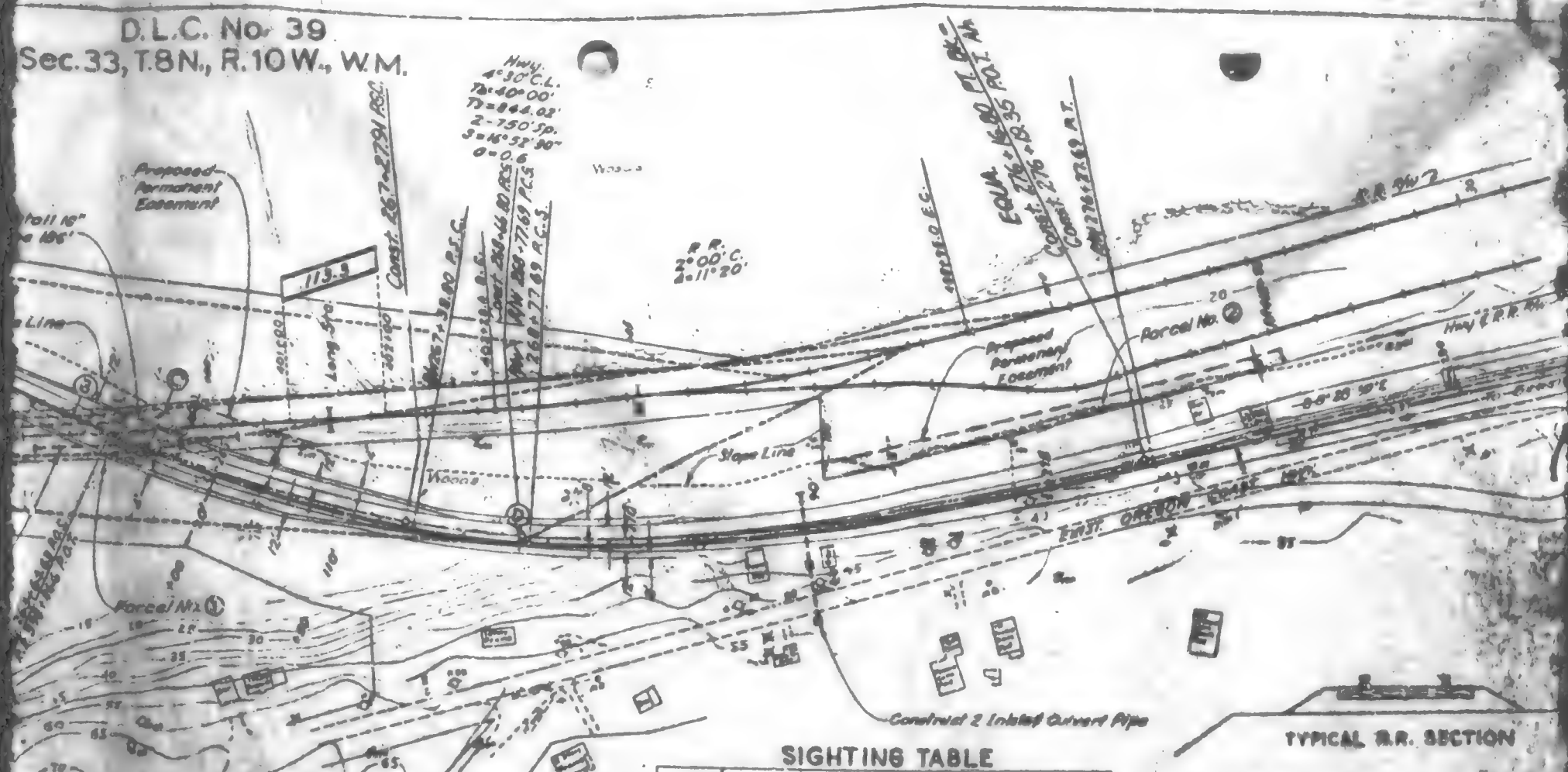


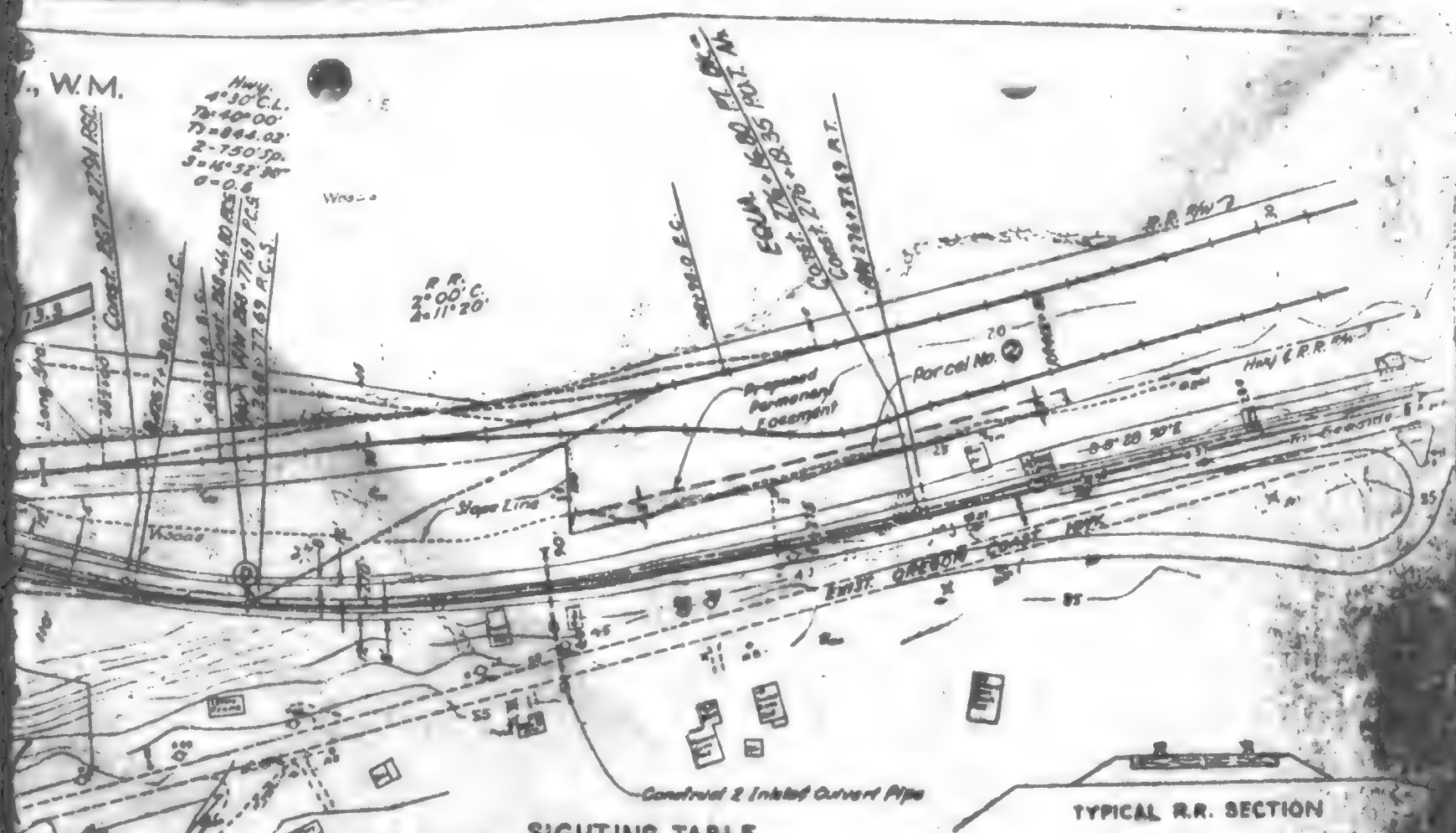
TYPICAL HIGHWAY SECTION

HIGHWAY SECTION ALONG R.R. ℄

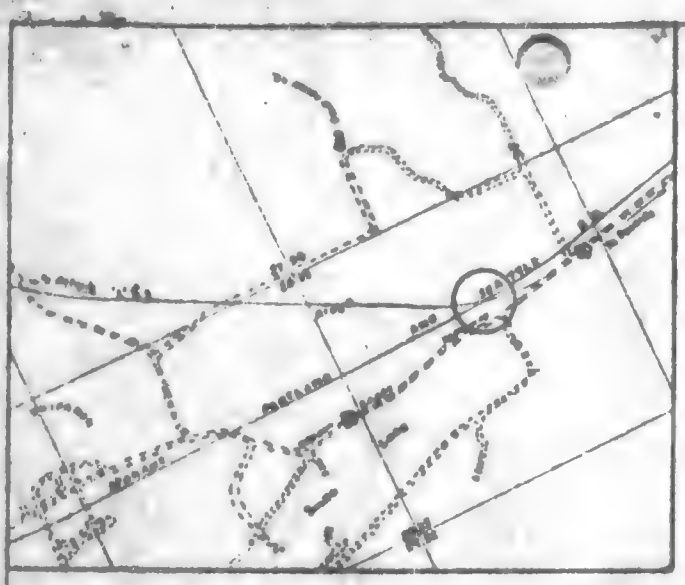


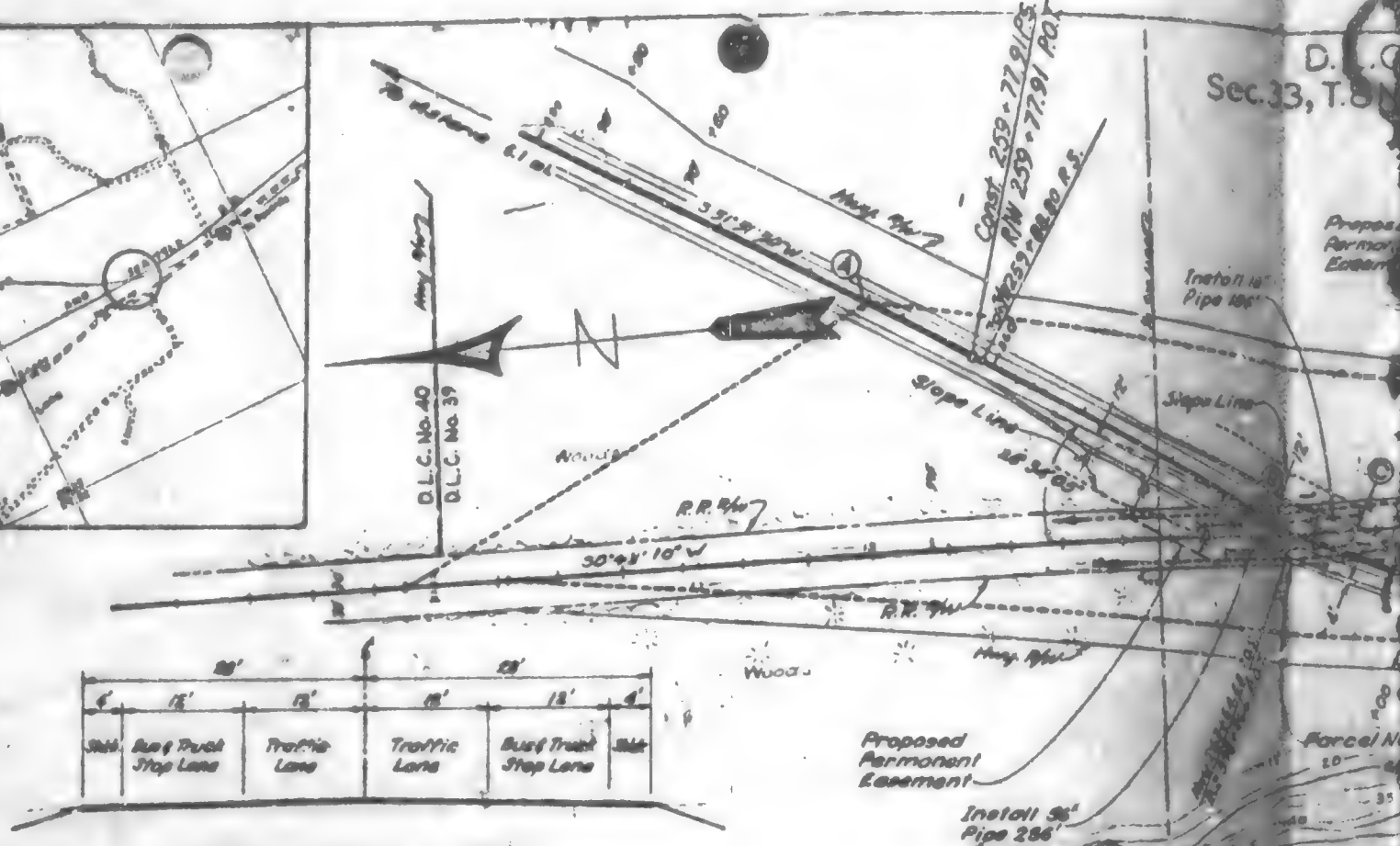
D.L.C. No. 39
Sec. 33, T.8N., R.10W., W.M.


Proposed Permanent Easement
Const. 2-7'x4' RCBC
Const. 2-7'x4' RCBC
Const. 2-6'x4' RCBC
Const. 2-6'x4' RCBC
Const. 2-6


W.M.
Hwy.
Δ=30°C.L.
Tc=400.00'
Tt=844.03'
2-750' Sp.
S=16°52' Rev.
D=0.6
Const. 267+27.94 P.S.C.
Const. 267+27.94 P.S.C.
Const. 278+18.35 P.S.C.
Const. 278+18.35 P.S.C.
EQUA. 278+18.35 Ahd. 278+00.00
R.R.
Hwy & R.R.
Parcel No. 2
Proposed Permanent Easement
Slope Line
Slope Line
EAST OREGON COAST HWY.
Construct 2 Inlets & Culvert Pipe
MAP
Scale: 1"=100'
SIGHTING TABLE
POINT
DISTANCE ALONG HIGHWAY FROM CROSSING TO POINT
N. EASTERLY
S. WESTERLY
GREATEST DISTANCE FROM CROSSING R.R. ENGINE CAN BE AT SIGHTING
NORTHERLY
SOUTHERLY
A 500' 700' 800'
B 50' 1000' 950'
C 900' 1100'
D 600' 800' 950'
TYPICAL R.R. SECTION
NOTE:
Areas left and right of Highway center line between stations 254+00 and 271+00 will be cleared to Highway Right of way Lines.
EQUA.
113.5
PROFILE
=50'
=10'
HIGHWAY PROFILE
Scale
Horz. 1"=100'
Vert. 1"=10'
97.45
EQUA.
OREGON STATE HIGHWAY DEPT.
S.P.&S. R.R. CROSSING
ENCROACHMENT & P.U.C. MAP
SOUTH UNIT
ASTORIA - CAMP RILEA SECTION
OREGON COAST HWY.
CLATSOP CO.
MAP NO. SB 23-20
FILE NO. 354

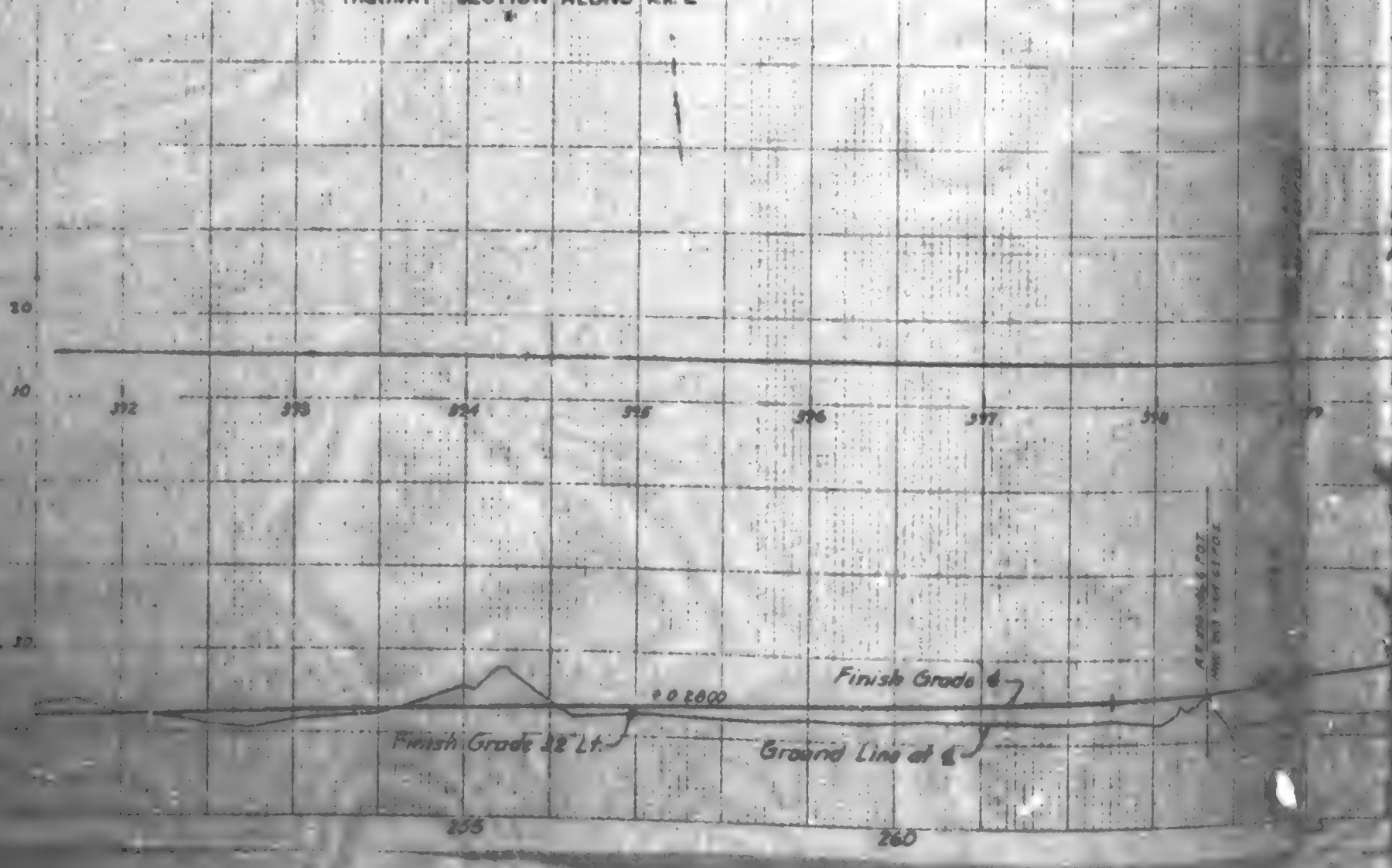
08-S3-S0



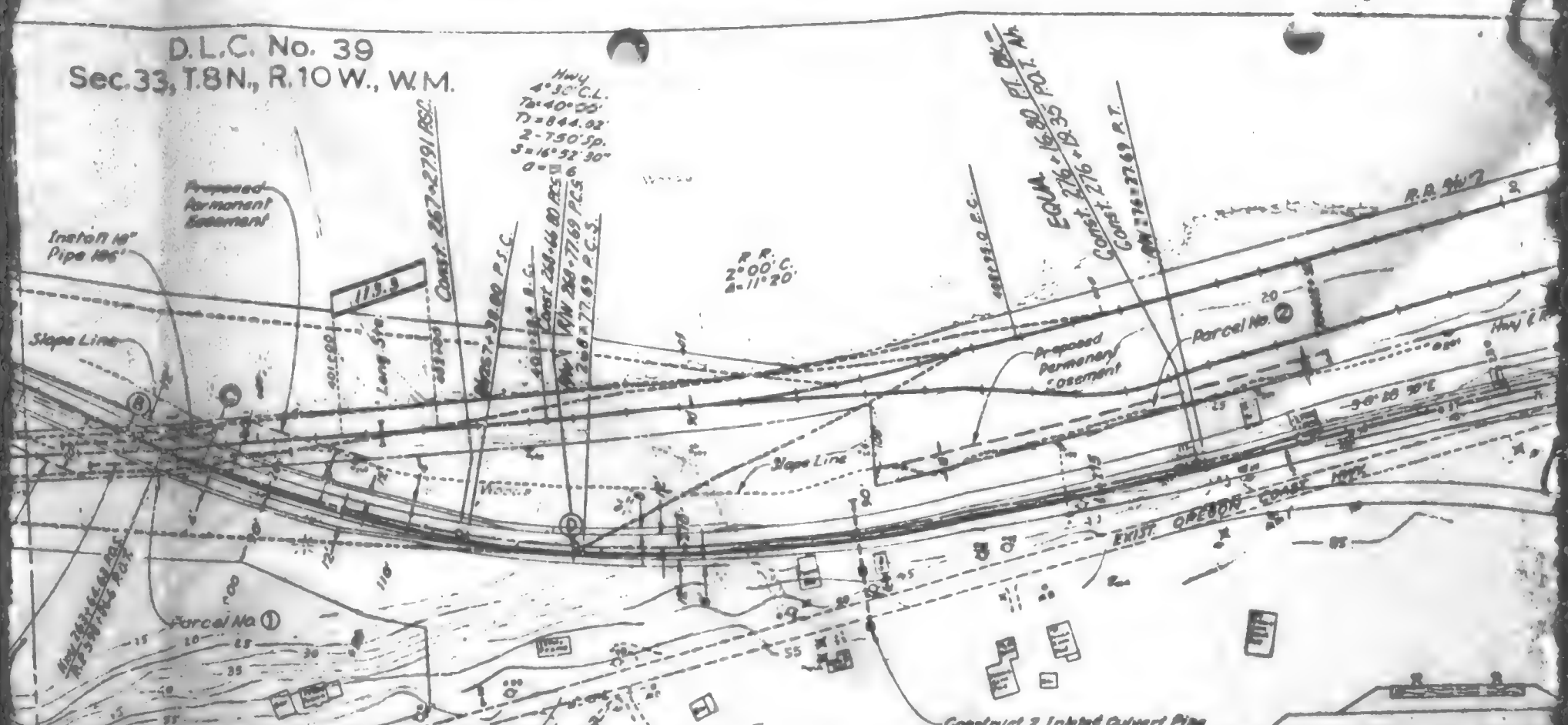


TYPICAL HIGHWAY SECTION

HIGHWAY SECTION ALONG R.R. ℄



D.L.C. No. 39
Sec. 33, T.8N., R.10W., W.M.

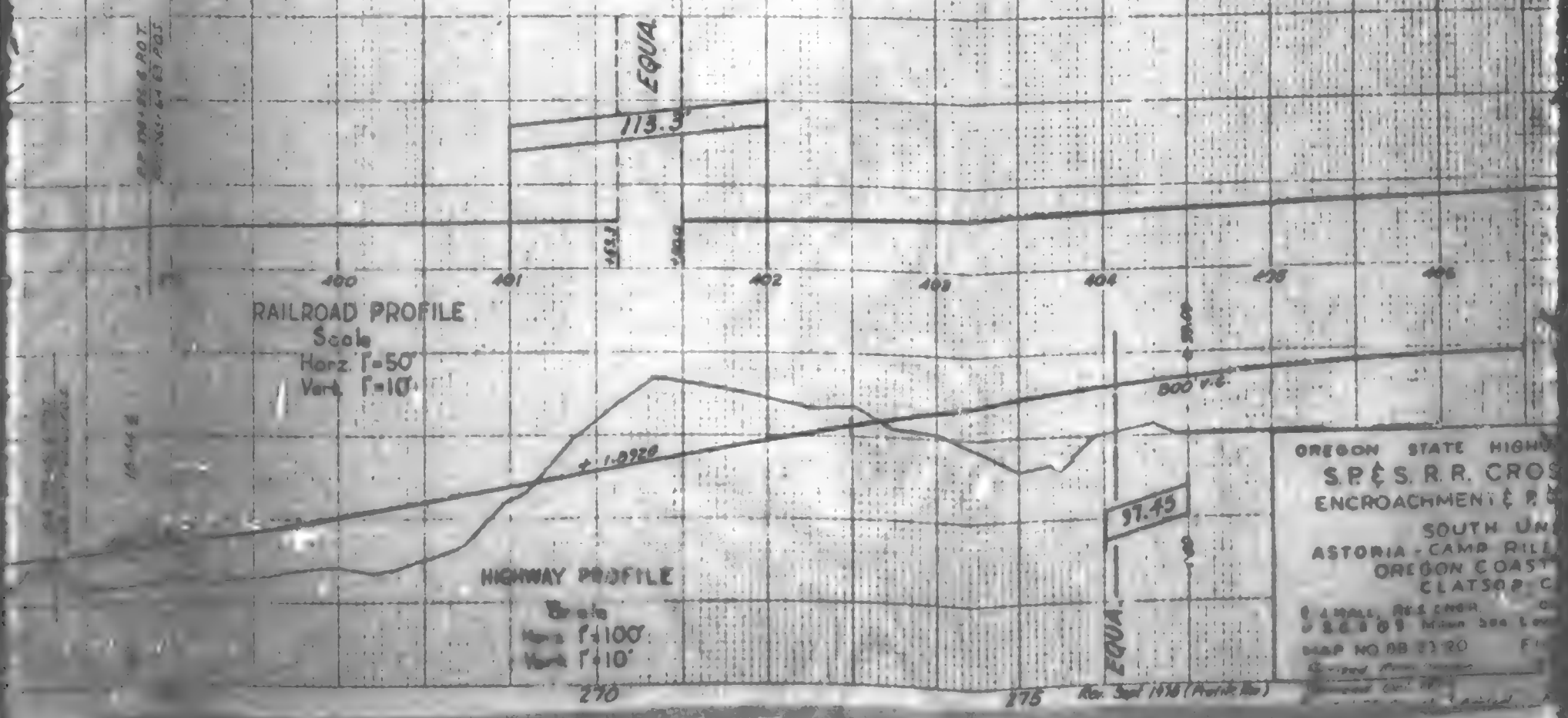


SIGHTING TABLE

POINT	DISTANCE ALONG HIGHWAY FROM CROSSING TO POINT		GREATEST DISTANCE FROM CROSSING R.R. ENGINE CAN BE AT SIGHTING	
	N. EASTERLY	S. WESTERLY	NORTHERLY	SOUTHERLY
A	500'		900'	800'
B	50'		900'	950'
C		50'	900'	1150'
D		800'	800'	950'

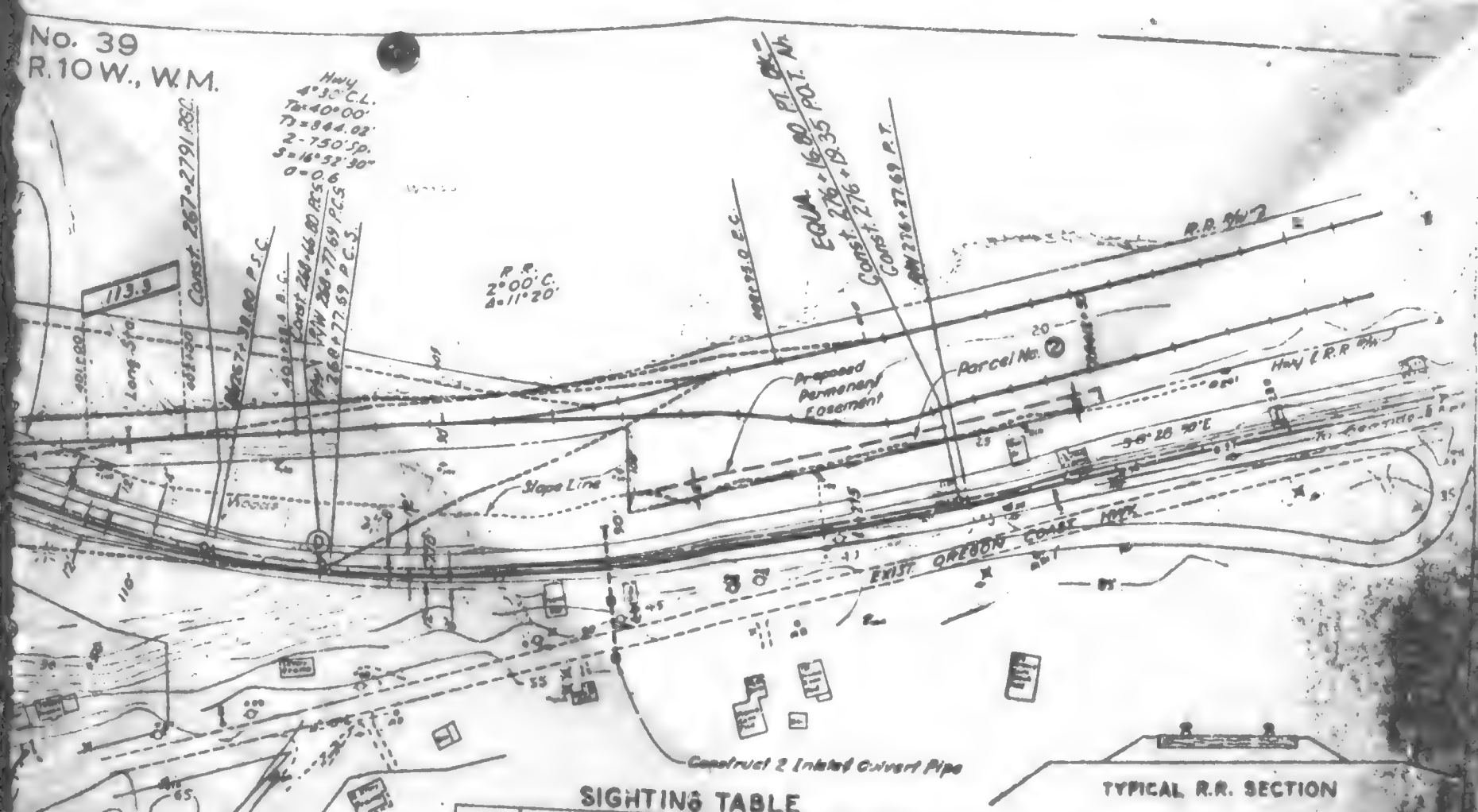
TYPICAL R.R. SECTION

NOTE:
Areas left and right of Highway center line between stations 2[illegible] and 271+00 will be cleared to [illegible] Right of Way Lines.



OREGON STATE HIGHW[illegible]
S.P.&S. R.R. CROS[illegible]
ENCROACHMENT & P[illegible]
SOUTH UN[illegible]
ASTORIA - CAMP RIL[illegible]
OREGON COAST[illegible]
CLATSOP C[illegible]
MAP NO 08 31 20

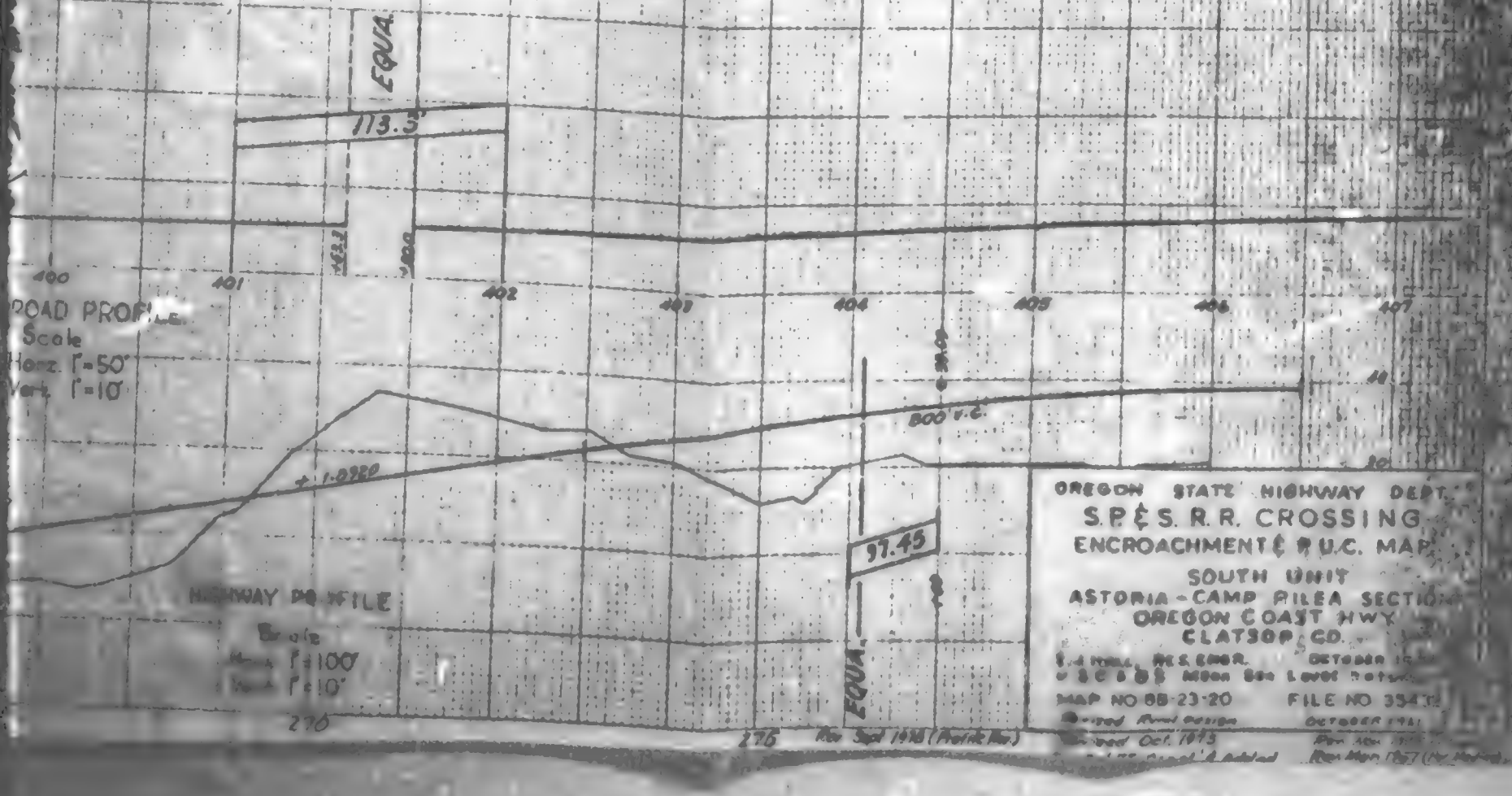
No. 39
R.10W., W.M.



SIGHTING TABLE

POINT	DISTANCE ALONG HIGHWAY FROM CROSSING TO POINT		GREATEST DISTANCE FROM CROSSING R.R. ENGINE CAN BE AT SIGHTING	
	N. EASTERLY	S. WESTERLY	NORTHERLY	SOUTHERLY
A	500'		90'	800'
B	50'		900'	950'
C		50'	900'	1180'
D		500'	800'	950'

NOTE:
Areas left and right of Highway center line between stations 254+00 and 271+00 will be cleared to Highway Right of Way Lines.



8947

ROBERT W. STRAUB

Department of Transportation

STATE HIGHWAY BUILDING, SALEM, OREGON 97310

April 21, 1978

Mr. Roy Hammond, Manager
Astoria Area Chamber of Commerce
Port of Astoria Building
Foot of Portway Street
Astoria, Oregon 97103

NOTED
E. S. HUNTER

Dear Roy:

During our meeting with the Chamber on April 5 the question came up concerning the letting date for the South Unit of the Astoria-Camp Rilea Section. As you will recall, the Six-Year Highway Program approved by the Commission lists the project for Fiscal Year 1980.

Since returning to Salem, I have confirmed the fact that we still have some 29 parcels of property, including at least three residences, to acquire before we can go to contract. We will accelerate that work so that the contract will be ready for letting next spring in Fiscal Year 1979 instead of 1980 as listed in the Six-Year Program.

Please make that correction in your books and, if you feel it appropriate, pass this information on to Bud Forrester of the Daily Astorian.

Sincerely,

F. B. Klaboe, Assistant
Director for Operations

FBK:srb

bc: Larry Rulien
D. H. Moehring
George Bell
E. S. Hunter
J. B. Boyd

RECEIVED
TECHNICAL SERVICES
APR 24 '78
REFER TO
FOR
DIR | ASST | ENG | OPS | SURV | TS | ENV

4-25-78
CC Boyd & Hunter
Henderson

In order to take advantage of the 79 const. season I would like to hold our target of April 79 for contract letting.
ESH

5949

Form FHWA 121 (Rev. 5-72)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: March 1, 1978

In reply refer to: HRW-OR/415.1

SUBJECT: Oregon Project F-2-6(2)
S. Unit Astoria-Camp Rilea Sec.
Clatsop County

FROM : G. L. Green, Division Administrator

NOTE!
E. S. HUNTER

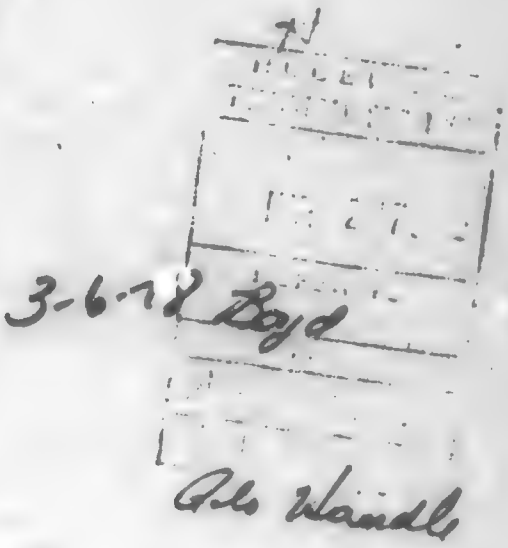
TO : Mr. E. S. Hunter, Mgr., Technical Services Br.
Oregon Dept. of Transportation
Salem, Oregon

COPY TO ROW 11

Relocation Supervisor Douglas Luth's letter of February 13, 1978, posed a question concerning a tenant relocatee. As recommended by Mr. Luth's letter, the State may, at the request of the displacee, change the ownership status of the displacee if such a dwelling is available and can be provided more economically. The State's files must be documented that it is more economical to State and Federal funding to waive the matching portion of the downpayment than it is to pay a rent supplement. It should also be documented that such action is in the best interest of the displacee.

G. L. Green

cc:
J. B. Boyd, Mgr., R/W (ODOT)
Douglas Luth, R/W (ODOT)



ROBERT W. STRAUB
GOVERNOR

Oregon State Highway Division

HIGHWAY BUILDING, SALEM, OREGON 97310

February 13, 1978

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FEB 15 '78
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FOR
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TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: Douglas J. Luth
Relocation Supervisor

SUBJECT: "Last Resort Housing"
Rent Supplement vs. Down Payment Benefit

A last resort housing plan on a soon to be acquired project has presented a problem. I solicit your advice and recommendation of a solution. Mr. and Mrs. Haskins, two daughters and a son, occupy a non-DSS soon to be acquired dwelling. Rent has been an uneconomic $50 per month for several years. Mr. Haskins has been steadily employed as a millwright in the local area. His income is adequate to support his family. When relocated, he desires to change from a tenant occupant status to that of a home owner. He can afford rent or amortization payments between $200 - $250 per month.

Preliminary investigation has indicated the displacee may be eligible for a rent supplement of up to $8,000. To purchase a DSS dwelling would require a down payment of $7,000, this is what the displacee would like to do. Since this is a last resort housing case, and the displacee desires to purchase, but does not have the matching money as required by FHPM 7-5-6, paragraph 5(f), would it not be reasonable and in the best interest of this agency and FHWA to provide the entire down payment amount? If the displacee were forced to remain as a tenant, the cost for a rent supplement would be $8,000. If the down payment money were made available to the displacee, the cost would be $7,000 or a savings of $1,000. By changing the occupancy status of the displacee, we would also accomplish the following:

1. It would meet the desires of the relocatee. He will change his occupancy from that of a tenant to an owner.

NOTED
F. D. KLABOE

2. It would provide the displacee and his family a dwelling to live in at a fixed cost (principal and interest payment). If he chose to rent, his supplement will expire at the end of the 48 month period. If he purchases, his principal and interest payments would remain constant during and after the 48 month period. By purchasing he would protect himself from any increased housing costs; such as, rent increases that could incur if he remained a tenant.

3. A down payment could be provided for an estimated $1,000 less than if the displacee were put back into his original tenant status.

Please advise if the matching money requirement for a down payment benefit as set out in 7-5-6, paragraph 5(*f*) could be waived in a case like this. It appears to be in the best interest of the relocatee, this agency and FHWA.

DJL:jc

cc: F. B. Klaboe
E. S. Hunter
D. H. Moehring
V. E. Skoog

8949

U.S. DEPARTMENT OF TRANSPORTATION — FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

2-13-78

FEDERAL AID PROJECT NO. -6(2)

STATE PROJECT NO. See Below

COUNTY NAME Clatsop

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 80157

TO:

Mr. F. B. Klaboe
Chief of Operations, ODOT
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER
	2-13-78	Primary 2
		STATE ROUTE NUMBER: Primary 9

GENERAL LOCATION:

"South Unit Astoria-Camp Rilea Section"

GENERAL DESCRIPTION OF WORK:

Acquisition of Right of Way and Last Resort Housing

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRLIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

XX OTHER (Specify): Last Resort Housing

XX ACQUISITION OF RIGHT OF-WAY
CONTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's 2-8-78 letter, I approve the relocation plan of 3-1-77 as updated 1-10-78 and the last resort housing plan of 1-27-78 for file 41288-Haskins. You are authorized to implement the last resor housing plan and proceed with the acquisition of all phases of right of way as outlined on R/W Map 8B-26-20 at a TEC NTE $200,000- F.F. $171,600.

Federal participation is limited to that right of way actually incorporated in the final location.

NOTED
F. B. KLABOE

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
2-13-78		for Division Administrator

FORM PR-1240 (REV. 8-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—623-787

8949

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: October 28, 1977

In reply refer to: HEC.3-OR

SUBJECT: Oregon Project RF-115(24)
South Unit Astoria - Camp Rilea Section
(Mr. Potter's ltr, 10-10-77)

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Mgr, Technical Services Br, Oregon Dept. of Transportation

Information furnished by Mr. Potter's letter on the distribution of the Final EIS for the subject project under the provisions of FHPM 7-7-2, paragraph 6e, is acknowledged. Accordingly, the project may be advanced under Federal-aid procedures on November 10, 1977.

G. L. Green

cc:
ODOT (C Laux, Proj Mgmt)
ODOT (G Potter, Env Sec)

cc Boyd
Versteeg
Hunt
11-2-77

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NOTED
J. H. VERSTEEG

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ORIGINAL SIGNED
DUANE O. CHRISTENSEN

Salem, Oregon
October 27, 1977

Duane O. Christensen
Final Design Engineer

John Sheldrake
Region 2 Engineer

Astoria-Camp Rilea, S. Unit
Oregon Coast Highway
Clatsop County
Railroad Crossing and PUC Map

The Railroad Encroachment and PUC map for the above subject section requires up-dating to current sighting point distances for "at grade crossings" of railroads which are 18-feet and 418-feet. Up-dating of the topography including existing buildings is also requested.

A print of the map, Drawing No. 8B-23-20, is attached for your use.

Please provide this information by November 10, 1977, so that this information can be furnished to the railroad.

WHS:th
cc: Dick Dorn

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Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem, Oregon 97308

DATE: October 5, 1977

In reply refer to: HEC.3-OR

SUBJECT: Oregon Project RF-115(24)
South Unit Astoria-Camp Rilea Sect.
FHWA-OR-EIS-76-01F

FROM : G. L. Green, Division Administrator

NOTED
E. S. HUNTER

TO : Mr. H. S. Coulter, State Highway Engineer
Salem, Oregon

The final EIS was accepted by our Regional Administrator on September 30, 1977, and forwarded to CEQ on the same date.

Please make copies of this final statement available as required by FHPM 7-7-2 and advise this office of such notice of availability so that date of project advancement can be established.

The original signed copy of the Title Sheet has been forwarded directly to the Environmental Section for immediate processing.

G. L. Green

RECEIVED
TECHNICAL SERVICES
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FOR
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cc:
Laux, Proj. Mgt.
Potter, Env. Section

RECEIVED
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Hunter
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cc Boyd
Cursley
Turpin
10-6-77 JK

.1979 S. Unit, Astoria - 8949
.Camp Rilea Sec. 101.
.Env. Impact Statement #7

8949

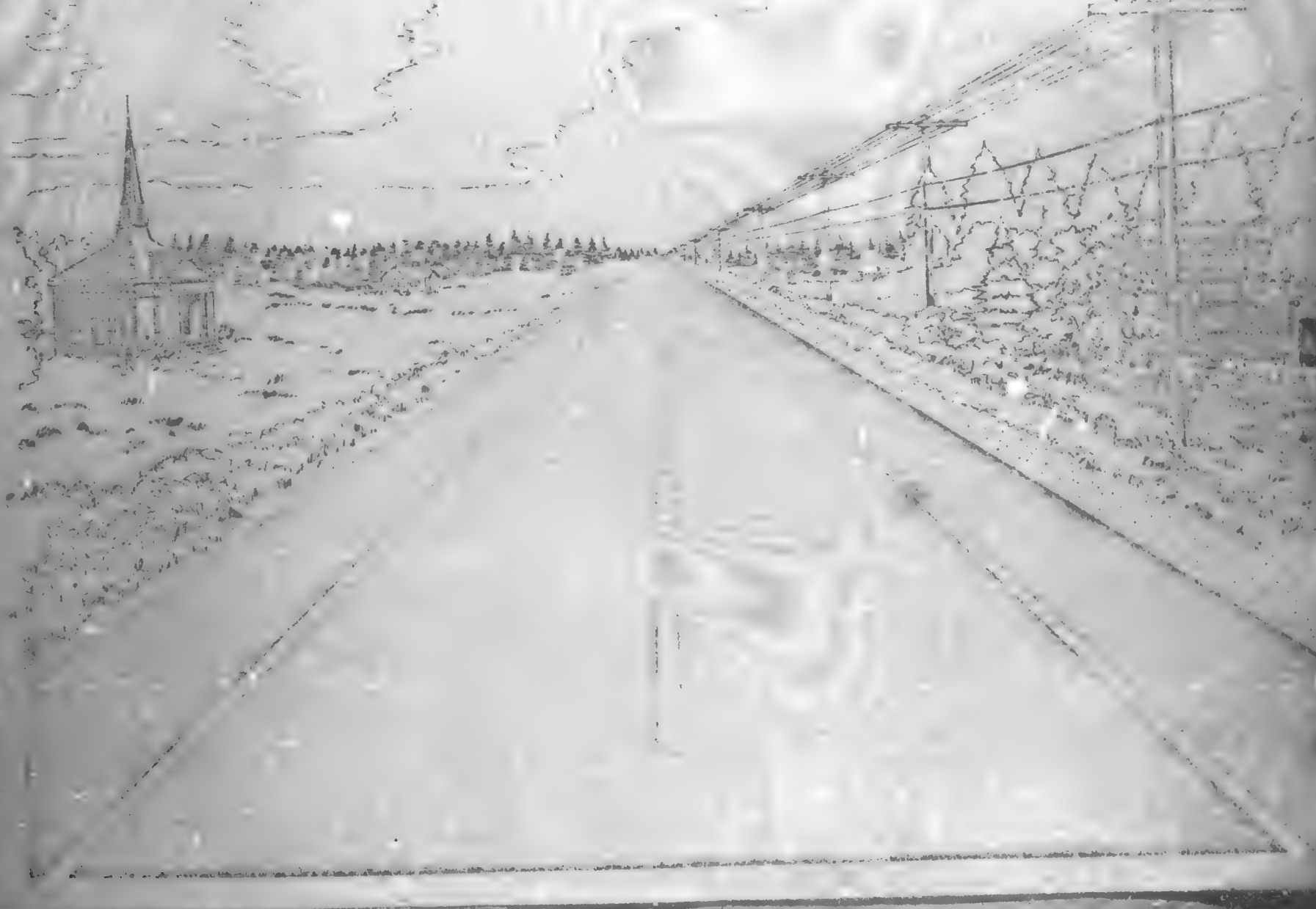
SOUTH UNIT, ASTORIA-CANNON BEACH SECTION

OREGON COAST HIGHWAY (U.S. 101), CLATSOP COUNTY, OREGON

FINAL

ENVIRONMENTAL IMPACT STATEMENT

OREGON STATE HIGHWAY DIVISION



8949

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Region 10

FHWA-OR-EIS-76-01-F

SOUTH UNIT, ASTORIA-CAMP RILEA SECTION
OREGON COAST HIGHWAY (US 101)
CLATSOP COUNTY, OREGON

ADMINISTRATIVE ACTION

FINAL
ENVIRONMENTAL IMPACT STATEMENT

U.S. DEPARTMENT OF TRANSPORTATION

Federal Highway Administration
and
Oregon State Highway Division

Submitted pursuant to 42 U.S.C. 4332 (2)(c)
and 23 U.S.C. 128 (a).

E J Johnston
Technical Services Engineer

8-17-77
Date

Richard C. Gaudey
Division Administrator, FHWA

9/30/77
Date

FHWA-OR-EIS-76-01-D
Federal Highway Administration
Region 10

SUMMARY OF
DRAFT ENVIRONMENTAL IMPACT STATEMENT

SOUTH UNIT, ASTORIA-CAMP RILEA SECTION
OREGON COAST HIGHWAY (US 101)
CLATSOP COUNTY, OREGON

1. Federal Highway Administration Administrative Action Environmental Statement.

   ( ) Draft (XX) Final

   ( ) Section 4(f) Statement Attached

2. The following individuals may be contacted for further information concerning the subject proposal and the contents of this environmental statement:

Mr. Glen Green
Division Administrator
Federal Highway Administration
Post Office Box 300
Salem, Oregon 97308
Phone: 378-3845

Mr. John Sheldrake
Regional Engineer
Department of Transportation
205 East Salem Highway Building
Salem, Oregon 97310
Phone: 378-2626

Mr. Gary A. Potter
Manager
Environmental Section
Department of Transportation
Salem, Oregon 97310
Phone: 378-8486

Mr. D. H. Moehring
Program Management Engineer
Program Management Section
Department of Transportation
Salem, Oregon 97310
Phone: 378-6563

3. The South Unit of the Astoria-Camp Rilea Section is located in Clatsop County on the Oregon Coast Highway (US Route 101). The northern terminus of the project is about 2.5 miles southwest of Astoria and the southern terminus is near Camp Rilea, an Oregon National Guard training area. The project section extends approximately 3.3 miles. Portland, the largest city in Oregon is about 100 miles to the southeast of the project.

4. The purpose of the proposed action is to build a modern, limit-controlled access highway capable of moving increased volumes of traffic safely. The existing 3.3-mile section of the Oregon Coast Highway is substandard in terms of current highway design, with its curcuitous alignment, a narrow bridge structure, hazardous intersections, and numerous access points. The design capacity of the existing highway is already being exceeded by present traffic volumes. Future anticipated traffic volume increases will greatly exceed the capacity and will result in decreased levels of service.

5. Three alternatives were considered for this statement:

Alternative 1--New Easterly Route (Selected alternative for this highway proposal)

This alternative provides a new, direct routing for the section across primarily rural, undeveloped land and is 2.8 miles in length. About 2.2 miles of the limited-controlled access highway is two-laned, with the remaining 0.6-mile of four lanes. The typical section contains 12-foot travel lanes and 8-foot paved shoulders. Left-turn lanes in the median area at major intersections would allow safe turning movements. A Class III bikeway is designated on the shoulders. A new bridge is required across the Skipanon River. The existing highway section would remain for local use. Total estimated cost (1976) is $3,290,000.

Alternative 2--Improvement of the Existing Route

This alternative is a reconstruction of the existing route and is 3.2 miles in length. Alternative 2 would utilize the existing alignment, where possible, with only minor readjustments to improve the horizontal and vertical alignment of the roadway. The roadway is four lanes for through traffic, with a left-turn lane in the median

at major intersections. The typical section contains 12-foot travel lanes and 8-foot shoulders (including Class III bikeways). This alternative also requires a new crossing of the Skipanon River. Total estimated cost (1976) is $5,470,000.

Alternative 3--No-Build or No-Action Alternative

6. Impacts:

Alternative 1 (Selected alternative)

a. The new straight line alignment would improve the regional and local transportation network and would effectively separate through from local traffic.

b. The new alignment crosses the boggy flood plain (diked) of the Skipanon River and would slightly reduce the ground water recharge area of the lowland.

c. The soils in the lowland area have high water and compressible organic content (including peat). Special construction techniques to establish a firm roadbed in these soils would require additional materials, manpower and energy.

d. The new Skipanon River bridge and the associated channel change would moderately degrade the aquatic habitat.

e. Clearing, grubbing and fill would destroy about four acres of wetlands.

f. There would be a moderate reduction in wildlife habitat, including a moderate (but no critical) loss of habitat for three endangered and threatened species.

g. The commercial businesses along the existing route which are dependent on tourists would experience economic decline.

h. The right-of-way requirements would cause the relocation of

one commercial operation and five families.

i. This route is recognized and recommended in local land use and transportation plans.

j. Rerouting away from the Warrenton High School would improve safety near the school.

k. Adverse noise levels would be reduced, except at the southern end of the project where there are many houses that are already experiencing noise levels in excess of FHWA noise guidelines.

Alternative 2

a. Although this alternative would improve the alignment of the existing highway, the numerous residential driveways, commercial access points and road connection would make access control infeasible.

b. The right-of-way impacts on businesses and residences would be severe--three commercial operations, forty-five single-family residences, and twenty-nine multiple-family dwellings. Relocation would be difficult due to the limited availability of replacement housing and business sites in the area.

c. The construction of a new bridge across the Skipanon River and removal of the existing one would temporarily degrade the aquatic habitat.

d. Increased noise levels in excess of FHWA guidelines would affect the school and many residences along the highway.

Alternative 3

a. This alternative would perpetuate the use of a poorly aligned, substandard facility.

b. Projected average daily traffic would exceed the design capacity, increasing congestion and decreasing the level of service.

c. Safety for school children, bicycle traffic and highway users would worsen.

d. The basic configuration of the section negates adequate improvement through maintenance.

6. Organizations receiving copies of the draft environmental impact statement:

Federal

Bureau of Outdoor Recreation
Department of Agriculture
Department of Commerce
Department of Health, Education and Welfare
Department of Housing and Urban Development
Department of the Interior
Environmental Protection Agency
Federal Aviation Administration
Federal Energy Administration
Fish and Wildlife Service
National Oceanic and Atmospheric Administration
National Park Service
Soil Conservation Service
U.S. Army Corps of Engineers
U.S. Coast Guard

State

Executive Department, Intergovernmental Relations Division
Department of Environmental Quality
Department of Fish and Wildlife
Department of Geology and Mineral Industries
Department of Land Conservation and Development
Division of State Lands
Oregon Environmental Council
Oregon State Library
Oregon State University
Water Resources Board

Local

Astoria Chamber of Commerce
Burlington-Northern Railroad
City of Astoria
City of Gearhart
City of Hammond
City of Seaside
City of Warrenton

Clatsop Community College
Clatsop County Board of Commissioners
Clatsop County Historical Society
Clatsop County Planning Commission
Clatsop Environmental Council
Clatsop-Tillamook Intergovernmental Council
Columbia Press
Daily Astorian
Port of Astoria
Seaside Signal
Warrenton Chamber of Commerce
Warrenton Dune Soil and Water Conservation District
Warrenton and Rural Fire Protection District
Warrenton-Hammond School District No. 30

The Environmental Impact Statement was amde available to the Council on Environmental Quality and the public on July 1, 1976.

TABLE OF CONTENTS

South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway (US 101)
Clatsop County, Oregon

	Page
SUMMARY OF DRAFT ENVIRONMENTAL IMPACT STATEMENT.	i
PURPOSE AND HISTORY OF PROJECT	1
Location of Project	1
Project Purpose	1
Basis for the Proposed Action	2
Early Planning for U.S. 101 Improvement	4
The Astoria-Camp Rilea Projects	6
SELECTION OF PROJECT ALTERNATIVE AND SUMMARY OF CORRIDOR-DESIGN HEARING	7
Alternative 1--New Easterly Route (selected alternative).	8
Alternative 2--Improvement of the Existing Route.	10
Alternative 3--No-Build or No-Action Alternative.	12
Public Hearing.	17
Coast Guard Hearing	17
Selection of Alternative.	18
ENVIRONMENTAL IMPACTS OF PROJECT ALTERNATIVES.	19
Natural Environment	19
Topography and Geology.	19
Soils and Ground Water.	20
Material Requirements and Sources	24
Skipanon River Flood Plain and Hydrology.	27
Aquatic Habitat	32
Terrestrial and Wildlife Habitat.	41
Vegetation Communities.	46
Wildlife.	48
Cultural Environment.	54
Archaeological and Historical Values.	54
Economy and Employment.	57
Population and Property Values.	64
Right-of-Way, Relocation, and Tax Base Reduction.	67
Land Use.	71
Regional and Local Transportation	77
Recreation.	83
Access.	86
Emergency Services and Schools.	89
Safety.	91
Utilities and Services.	92
Air Quality	93
Acoustical Analysis	99
Construction Activities	104
Interagency Coordination and Permits.	106

Page

Comparative Summary of Impacts. 107

PROBABLE UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS 111

RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY 114

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES. 117

COMMENTS AND RESPONSES 118

SELECTED BIBLIOGRAPHY. 139

APPENDICES

A--Geologic Hazards and Soils

B--Material Sources

C--Natural Habitat

D--Historical and Archaeological Report

E--The Economy of Clatsop County

F--Net Social Benefits and Methodology Used in the Benefit-Cost and Rate-of-Return Analysis

G--Relocation Assistance and Availability of Replacement Housing

H--Inventory of Developed Public Recreational Sites and Facilities

I--Acoustical Analysis

LIST OF FIGURES

Number	Title	On or Following Page Number
1	Location of Project.	xii
2	Project Area	xii
3	Straight Line Map of Section	4
4	Three Corridor Routes, Astoria-Gearhart Section. .	6
5	Project Alternatives	7
6	Typical Sections	9
7	Topographic Map of Project Area.	19
8	Skipanon River Watershed	26
9	Historic Sites Map	54
10	Letter from State Historic Preservation Office . .	54
11	Average Annual Unemployment Rates.	58
12	Projected Population Growth.	64
13	Property Values Per Acre	64
14	Existing Land Use	72
15	Zoning	72
16	Development Areas.	74
17	Highways in Clatsop County	76
18	Selected Recreation Sites in the Vicinity of Project Area	82
19	Sound Measurement Sites and Sections	100
A-1	Boring Log of Terrace Alluvium Warrenton Area. . .	A-10
C-1	Change Forces on Natural Environmental Habitats. .	C-3
G-1	1970 Relocation Act--Monetary Benefits	G-7

		On or Following Page Number
I-1	A, B, C Weighting Curves.	I-2
I-2	Typical A-Weighted Sound Pressure Levels.	I-3
I-3	Typical Traffic Noise	I-4
I-4	Federal Highway Administration Noise Guidelines . .	I-4

LIST OF TABLES

Number	Title	Page
1	Summary Comparison of Alternatives.	15
2	Geologic Hazards.	23
3	Material Sources.	25
4	Periods When Anadromous Fish Are Present or Spawning in the Skipanon River System.	34
5	Habitat Types in Clatsop County	42
6	Potential Short-Term and Long-Term Wildlife Losses.	50
7	Benefit-Cost and Rate-of-Return Data.	61
8	Population Change	65
9	Median Age and Age 65 and Over.	65
10	Right-of-Way and Tax Base Reduction Data.	69
11	Percentage Tax Base Reductions	70
12	Historic Traffic Data	78
13	Average Daily Traffic By Months	79
14	Highest Volume Hours	80
15	Traffic Projections (ADT)	82
16	Traffic Data Summary	94
17	Total Carbon Monoxide Emissions	96
18	National Air Quality Standards	97
19	Existing Sound Levels (L_{10} and L_{50})	100
20	Adverse Noise Distances (in Feet) From Edge of the Roadway	101
21	Summary Evaluation of Impacts.	107
A-1	Characteristics of Soil Associations in Project Area . . .	A-9
F-1	Summary of Trade-Offs to Obtain Net Social Benefits. . . .	F-6
G-1	Payment Schedule	G-3

LIST OF PHOTOGRAPHS

Title	After Page
U.S. 101 at north end of Project (looking southwesterly).	2
Skipanon River bridge on Oregon Coast Highway (U.S. 101).	2
Intersection of U.S. 101 and the Fort Stevens Highway in Warrenton. . . .	2
Looking south on U.S. 101 near Ridge Road intersection.	2
Skipanon River south of U.S. 101 crossing	30
Skipanon River near Dolphin Avenue crossing	30
Replica of the fort at Fort Clatsop National Memorial	52
The wreck of the Peter Iredale on the beach at Fort Stevens State Park. .	52
Station X firing tower, part of the Coast Defense System.	52
Clatsop Plains Pioneer Presbyterian Church.	52
Cullaby Lake County Park.	52

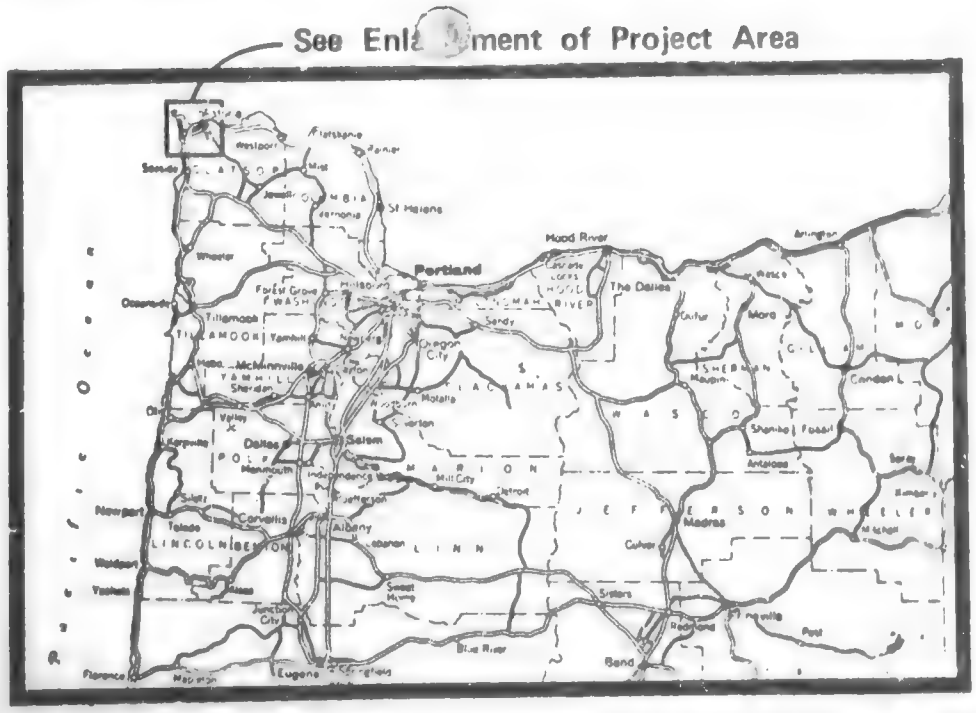
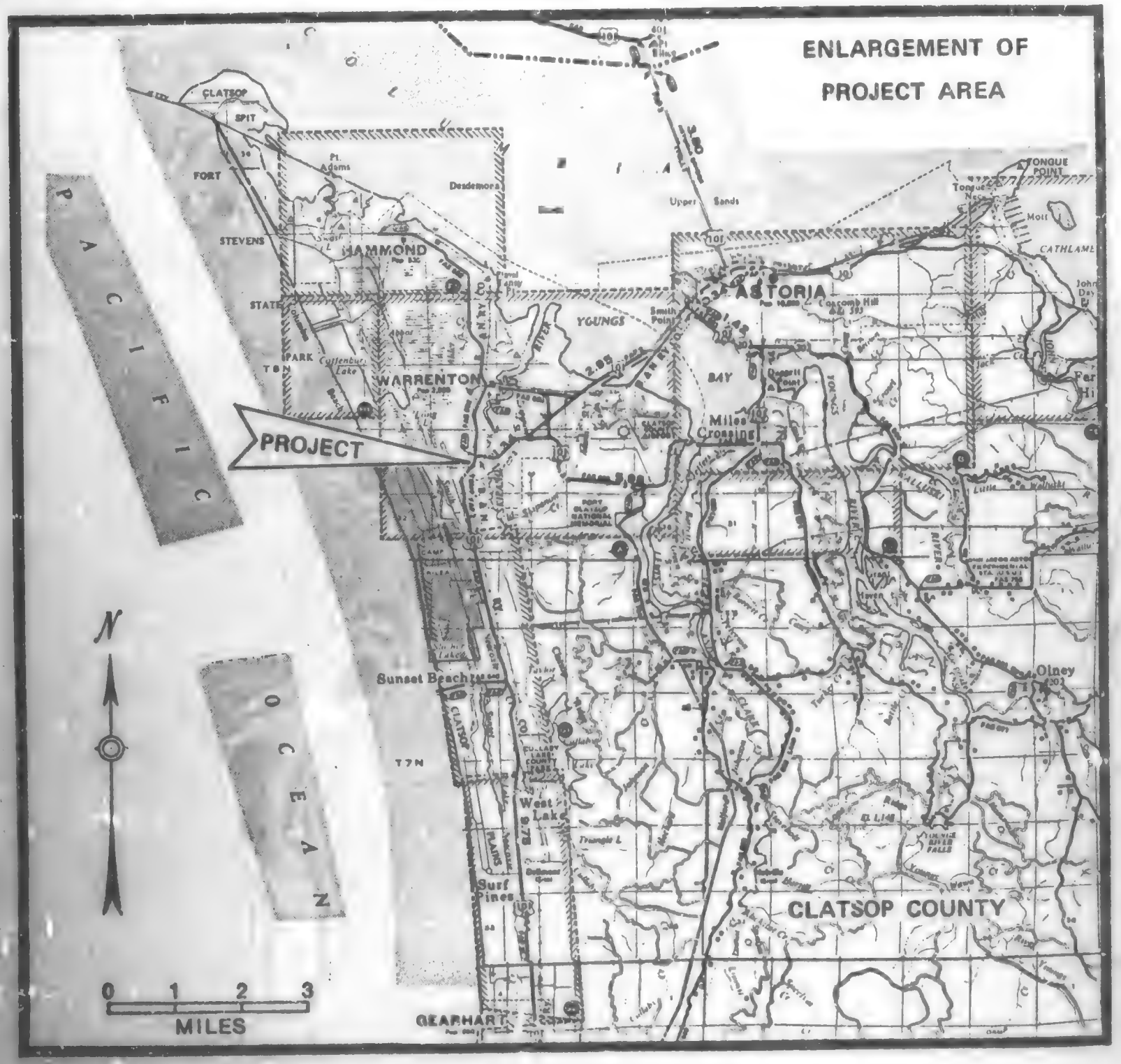


Figure 1

LOCATION OF PROJECT



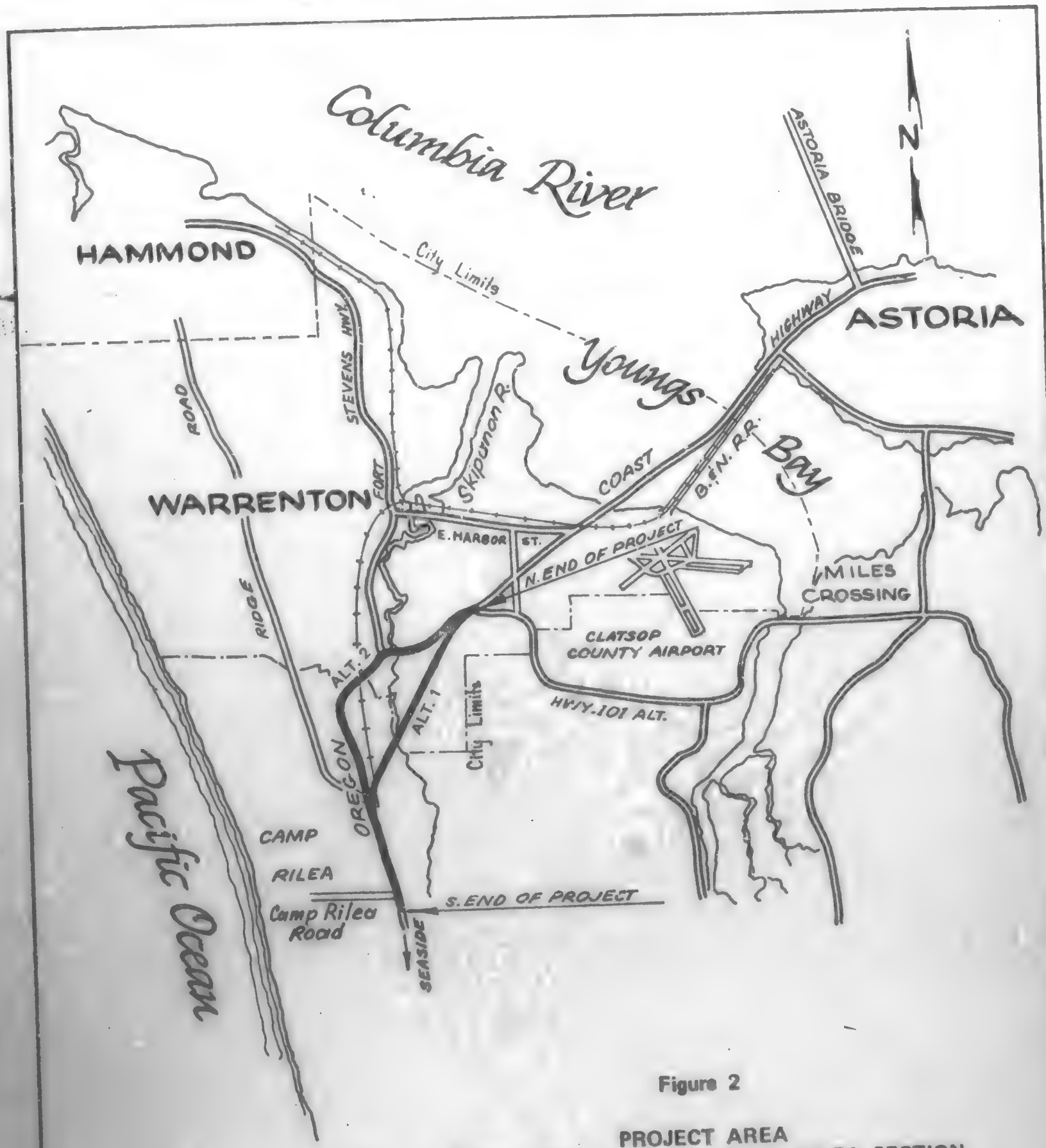


Figure 2

PROJECT AREA
SOUTH UNIT, ASTORIA – CAMP RILEA SECTION
OREGON COAST HIGHWAY
CLATSOP COUNTY

PURPOSE AND HISTORY OF PROJECT

Location of Project

The south unit of the Astoria-Camp Rilea Section is located in Clatsop County on the Oregon Coast Highway (U.S. Route 101 and State Primary Highway Number 9). (See Figures 1 and 2.) The northerly terminus of the project is approximately two and one-half miles southwest of Astoria, the county seat of Clatsop County. About one-half of the project section is within the city limits of Warrenton. The southerly terminus of the project is near Camp Rilea, an Oregon National Guard training area. Gearhart lies six and one-half miles south on the Oregon Coast Highway. Seaside is eight miles south. Portland, the largest city in Oregon, is about one hundred miles southeasterly of the project.

Project Purpose

The purpose of the proposed action is to build a modern, limited-controlled access highway capable of moving increased volumes of traffic expeditiously and safely. The new highway section is necessary to adequately handle the current and anticipated transportation needs of the local and regional area. The design capacity of the existing highway is already being exceeded by present traffic volumes. Due to the abundance of recreational opportunities in this coastal region, the traffic volumes are disproportionately high during the summer months and on weekends. (In August, the peak vacation travel month, the average daily traffic is about 150 percent greater than for the average for the year.) Heavy recreation and commercial truck traffic, combined with local traffic, has burdened the highway and made the facility more congested in recent years. Because passing opportunities are limited along the section, the level of service--the ability of the facility to serve traffic needs--is

low. Vehicle operating costs, travel time and accident potential have increased concomitantly. The accident rate for the section presently exceeds that for similar types of highways. Therefore, unless this section is improved, the future anticipated traffic increases will greatly exceed the capacity and will reduce the efficiency of this transportation link.

Basis for the Proposed Action

The existing 3.3-mile section of the Oregon Coast Highway is substandard in terms of current highway design. Design standards now in effect for rural primary highways are more stringent than those in effect during the original construction of the highway. Consequently, certain features of the existing section are substandard in comparison to design standards currently endorsed by the American Association of State Highway and Transportation Officials.

The existing roadway consists of two twelve-foot travel lanes and variable three- to six-foot shoulders. The shoulders are partly paved, partly graveled. Consequently, the roadway inhibits safe roadside emergency stopping, pedestrian and bicycle use, and left turning movements. The curving alignment of the existing facility provides minimum sight distance and a safe speed of from 30 to 40 miles per hour in places. A portion of the existing highway has a posted speed of 45 miles per hour. Horizontal and vertical curves, along with other physical restrictions, make it unsafe for motorists to pass for approximately 85 percent of the total project length. As indicated on the straight line map of the section in Figure 3, the existing section has numerous street and road connections. There is an at-grade crossing of the Burlington Northern Railroad on the existing highway. A narrow bridge, hazardous intersections, numerous access points, restriction of traffic through Warrenton, and close abutting roadside developments all contribute

U.S. 101 at north end of Project (looking southwesterly)

Siletz River bridge on Oregon Coast Highway (U.S. 101)

Intersection of U.S. 101 and the Fort Stevens Highway in Warrenton

Looking south on U.S. 101 near Ridge Road intersection

to the obsolescence of the facility, create unsafe conditions, and interrupt the free flow of traffic.

During 1974 the average daily traffic over this section of highway was 6,100 vehicles. Truck traffic amounts to nearly ten percent of the total daily traffic. Assuming unrestricted travel and no improvements in public transportation, the projected 1994 average daily traffic is 9,500 vehicles, an increase of 64 percent from the 1974 volume. Calculated design capacity of the existing facility is 6,200 vehicles for the northern half and 5,000 vehicles for the southern half.

During the period January 1, 1970, through December 31, 1974, the accident rate for this section was 2.7 accidents per million vehicle miles. This compares with a statewide accident rate for similar types of highway of 1.9 accidents per million vehicle miles.

This section is the south unit of an Oregon State Highway Division project for improvement of the Oregon Coast Highway from Astoria to Camp Rilea. The northern unit, constructed during the period 1961 to 1965, involved 3.3 miles of newly aligned highway from Smith Point in Astoria to the existing U.S. 101 intersection with Alternate 101 (referred to as 12th Place S.E. within the Warrenton city limits). The north unit contains two twelve-foot asphaltic concrete travel lanes with ten-foot paved shoulders. The Youngs Bay bridge and approach were integral parts of the north unit project.

The section of roadway to the south of the subject section has two twelve-foot lanes with three-foot shoulders. The Oregon State Highway Division is actively studying the improvement of that portion of U.S. 101 to upgrade the facility to a common design standard. Currently under study is the Camp Rilea-North Cannon Beach Junction project, a 16-mile section of the Oregon Coast Highway.

Completion of the entire section from Astoria to Cannon Beach is several years in the future. However, the improvement of this section would create a more direct and convenient transportation linkage between Astoria and points south on U.S. 101.

The proposed south unit of the Astoria-Camp Rilea project is compatible with state, regional and local transportation goals. The subject section appears in the Oregon State Highway Division's Six Year Construction Program. The Clatsop-Tillamook Intergovernmental Council's District One Major Road and Highway Plan, Clatsop and Tillamook Counties, Oregon (1974, Cannon Beach) states that the project " . . . will provide the District with a more convenient and safer highway system (p. 22)." The Comprehensive Plan for Land Use and Major Road, Clatsop County, Oregon (1968: County Court House, Astoria) includes the project (page 10). Likewise, the city of Warrenton's comprehensive plan (Warrenton Comprehensive Plan, Volume II, Community Plan, adopted August 19, 1974) recommends the project to reduce ". . . the number of intersections and (minimize) the number of individual curb cuts (p. 34)."

Early Planning for U.S. 101 Improvement

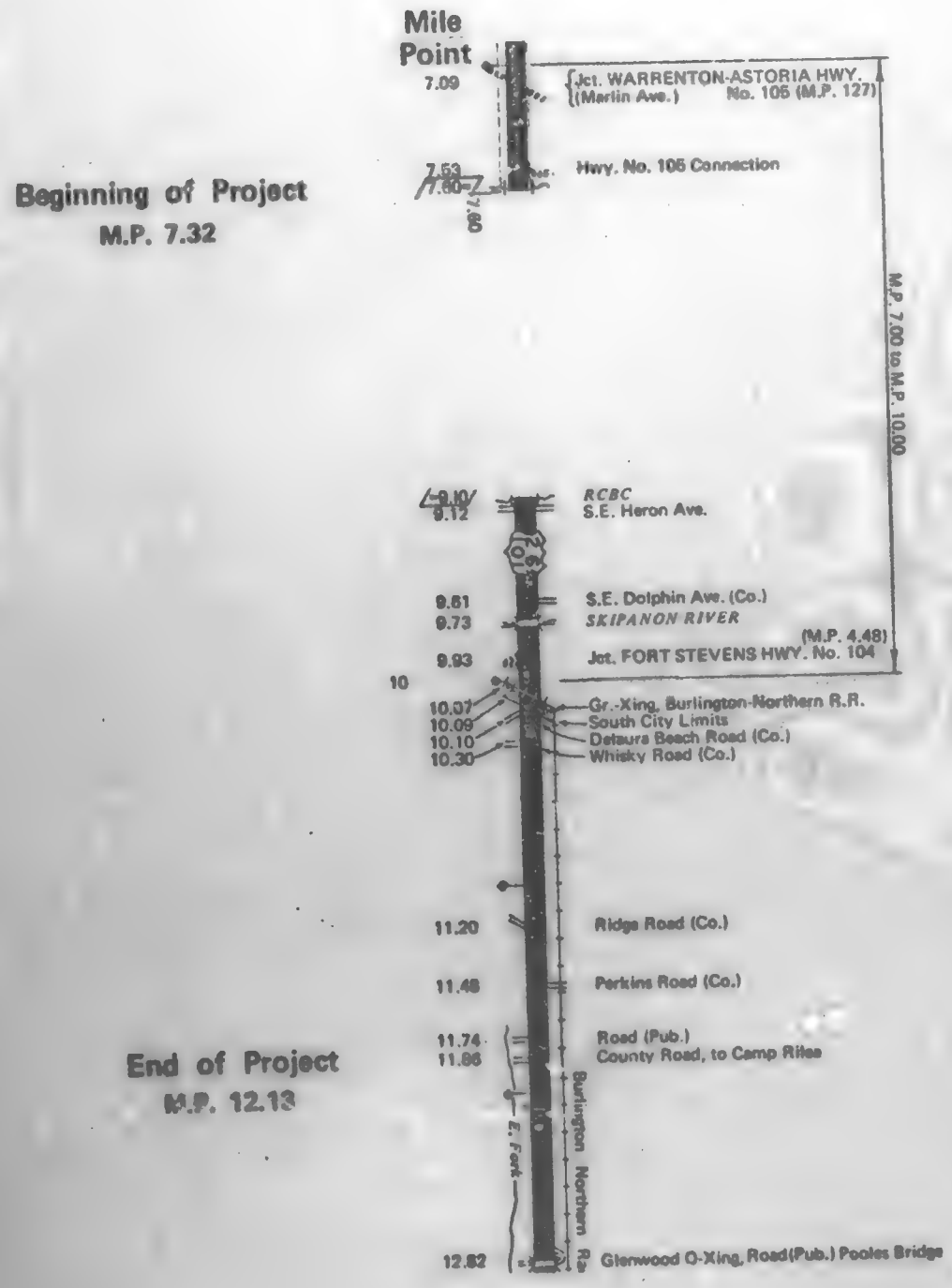
U.S. 101 in Clatsop County was reconstructed to its present standard during the period of extensive highway improvement following World War I. Prior to the twenties, there were sections of the coast highway open to very limited travel but 1922 is generally considered the year that the highway came into being. The location of the subject section is substantially the same today as when it was originally constructed. Plans for improving the state transportation network advanced in the twenties, but the Depression and, later, World War II held additional improvements to a minimum.

A rerouting of the Oregon Coast Highway from Astoria to Seaside was initially discussed by the Oregon Transportation Commission in 1942. However, no

Figure 3

STRAIGHT LINE MAP OF SECTION

OREGON COAST HIGHWAY NO. U.S. 101



Beginning of Project
M.P. 7.32

End of Project
M.P. 12.13

Source: "Oregon Department of Transportation"

definitive steps were taken until May, 1946. At that time the Commission discussed a proposed relocation of the Oregon Coast Highway between Youngs Bay and the crossing of the Lewis and Clark River near Astoria. A location survey was completed and adopted in 1947 for the three-mile permanent relocation of U.S. 101. Nevertheless, this plan for an inland routing of U.S. 101 did not reach fruition.

In August, 1951, the Oregon Transportation Commission authorized the Highway Division to make a complete survey for improvement of the Oregon Coast Highway from Astoria to the south city limits of Seaside. In July, 1959, the Oregon State Highway Division released Technical Report No. 59-6, Astoria-Gearhart Section, Oregon Coast Highway (OSHD, July 1959). This report evaluated three separate corridor routes for U.S. 101 from Astoria to Gearhart, immediately north of Seaside. The three corridor routes (shown on Figure 4) were as follows:

Proposal A--The Lewis and Clark Route

> This proposal would improve the existing roadway from Smith Point to the Youngs Bay Bridge (old) and would include the construction of a new two-lane bridge adjacent to the existing bridge and the raising and modernizing of the existing bridge. From the south end of Youngs Bay Bridge to a point just north of Gearhart, would involve 9.5 miles of new construction. The total length of the section would be 11.8 miles from Astoria to Gearhart.

Proposal B--Airport or Smith Point Route

> Proposal B, a total distance of 11.4 miles, would involve about 0.9-mile of embankment and 0.8-mile of structure to cross Youngs Bay just east of the existing railroad bridge. If then would follow a new alignment for 6.4 miles to a point on the existing highway near Sunset Beach. The existing highway would be improved from this point south to Gearhart, a distance of about 3.2 miles.

Proposal C--Camp Rilea Route

> This route, totaling 11.58 miles, would run directly across Youngs Bay from Smith Point, incorporating 0.8-mile of structure and 1.2 miles of embankment. It would follow a new alignment for about three miles to Clatsop Station and include the improvement of existing highway 101 for seven miles to Gearhart.

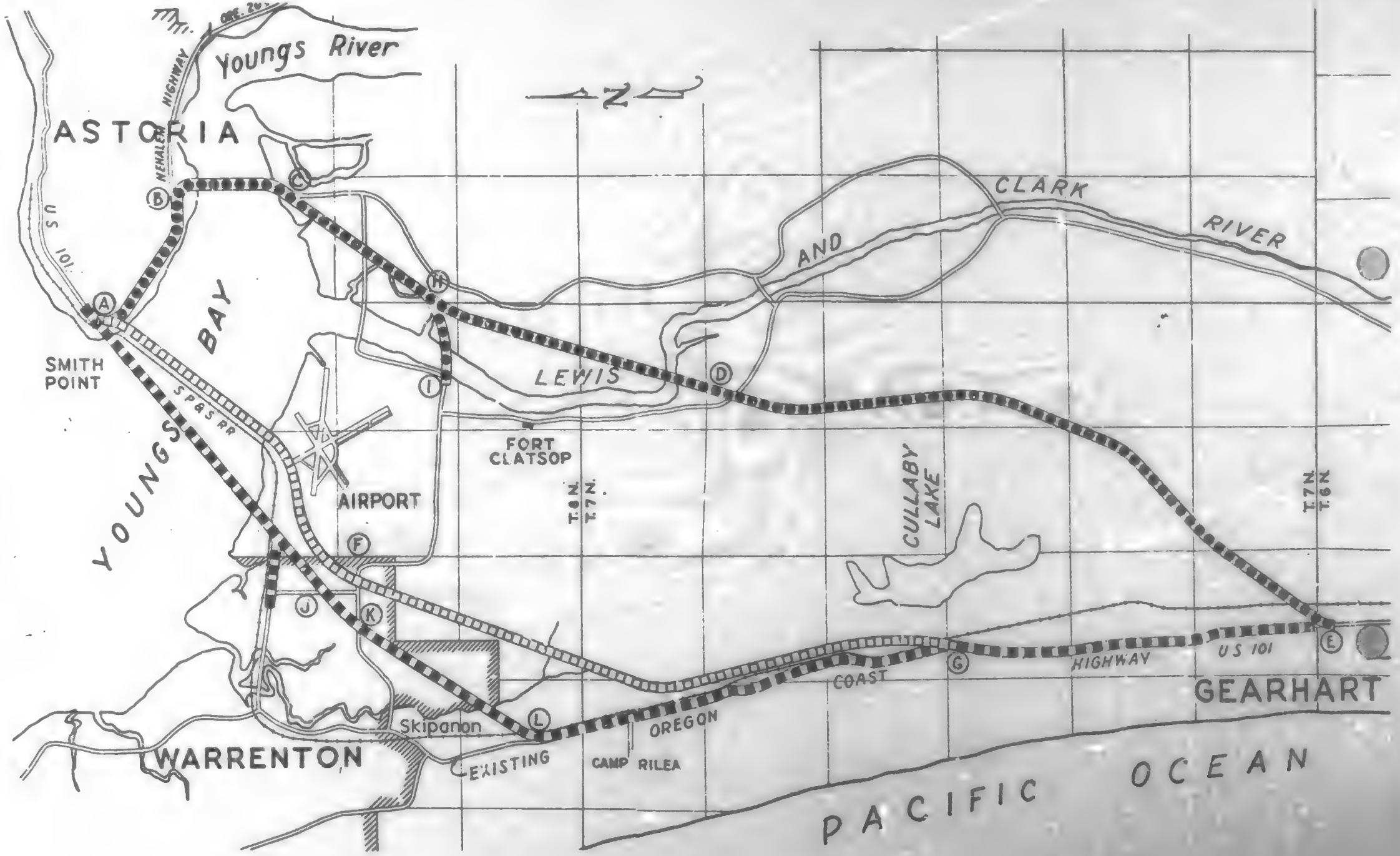
A public hearing was held at Astoria, Oregon, on October 29, 1959 to consider the relocation of the Oregon Coast Highway (U.S. 101) between Astoria and Gearhart. Approximately 440 persons attended the hearing. The preponderance of the statements made at the hearing indicated that a majority of the local citizens favored Proposal C.

On December 16, 1959, the Oregon Transportation Commission approved a survey resolution for the location of the Astoria-Camp Rilea Section of the Oregon Coast Highway and for acquistion of the required right-of-way along the route. This approval concluded ten or more years of planning for the relocation of the Oregon Coast Highway in the vicinity of Astoria and Warrenton.

The Astoria-Camp Rilea Projects

Although the survey and preliminary designs had been prepared for improvements of U.S. 101 from Astoria to Gearhart, limited funding prevented construction of the entire section initially. Only the northern unit was considered for immediate construction. Grading work started on that unit in June, 1961. Construction of the new Youngs Bay Bridge commenced in March, 1963. The north unit was officially dedicated and opened for use on August 29, 1964.

Planning for the south unit began while the north unit was under construction. On June 17, 1969, the Federal Highway Administration granted location and corridor route approval for the south unit. And, on December 12, 1969, design approval for a roadway containing four travel lanes was granted by the Federal Highway Administration. Statewide highway project priorities and funding limitations prevented construction of the south unit even though repeated requests were made by local interests for the project.



●●●●● ROUTE "A" – LEWIS AND CLARK ROUTE

▫▫▫▫ ROUTE "B" –AIRPORT OR SMITH POINT ROUTE

■■■■ ROUTE "C" – CAMP RILEA ROUTE

Figure 4

THREE CORRIDOR ROUTES

ASTORIA – GEARHART SECTION

SELECTION OF PROJECT ALTERNATIVE

As previously indicated, the Oregon State Highway Division studied and developed plans for improving the subject section of the Oregon Coast Highway on a new alignment for many years. Subsequent to a public hearing in 1959 and the Federal Highway Administration approvals of the corridor and design, the planning procedures for highway project development have changed. In accordance with Federal guidelines, environmental impact statements are now required for major projects that will significantly affect the natural, social, and cultural environments. To minimize the adverse impacts associated with a project of this magnitude, consideration must be given to all reasonable alternatives. Therefore, several alternatives were evaluated in the Draft Environmental Impact Statement and were presented to the public at a hearing in the City of Warrenton on August 12, 1976. The public favored Alternative 1 which was subsequently approved by the Oregon State Highway Division. The three alternatives are (figure 5):

ALTERNATIVE 1--New Easterly Route (selected alternative)

ALTERNATIVE 2--Improvement of the Existing Route

ALTERNATIVE 3--No-Building or No-Action Alternative

The design considerations for the build alternatives assumed that sufficient right-of-way will be purchased for a four-lane highway. Present projections of traffic on this section of the Oregon Coast Highway indicate that two travel lanes would provide adequate service to the public up to 1994. Initially, only a two-lane highway (with a short four-laned section) would be constructed in Alternative 1. Alternative 2, however, would provide four travel lanes throughout the section.

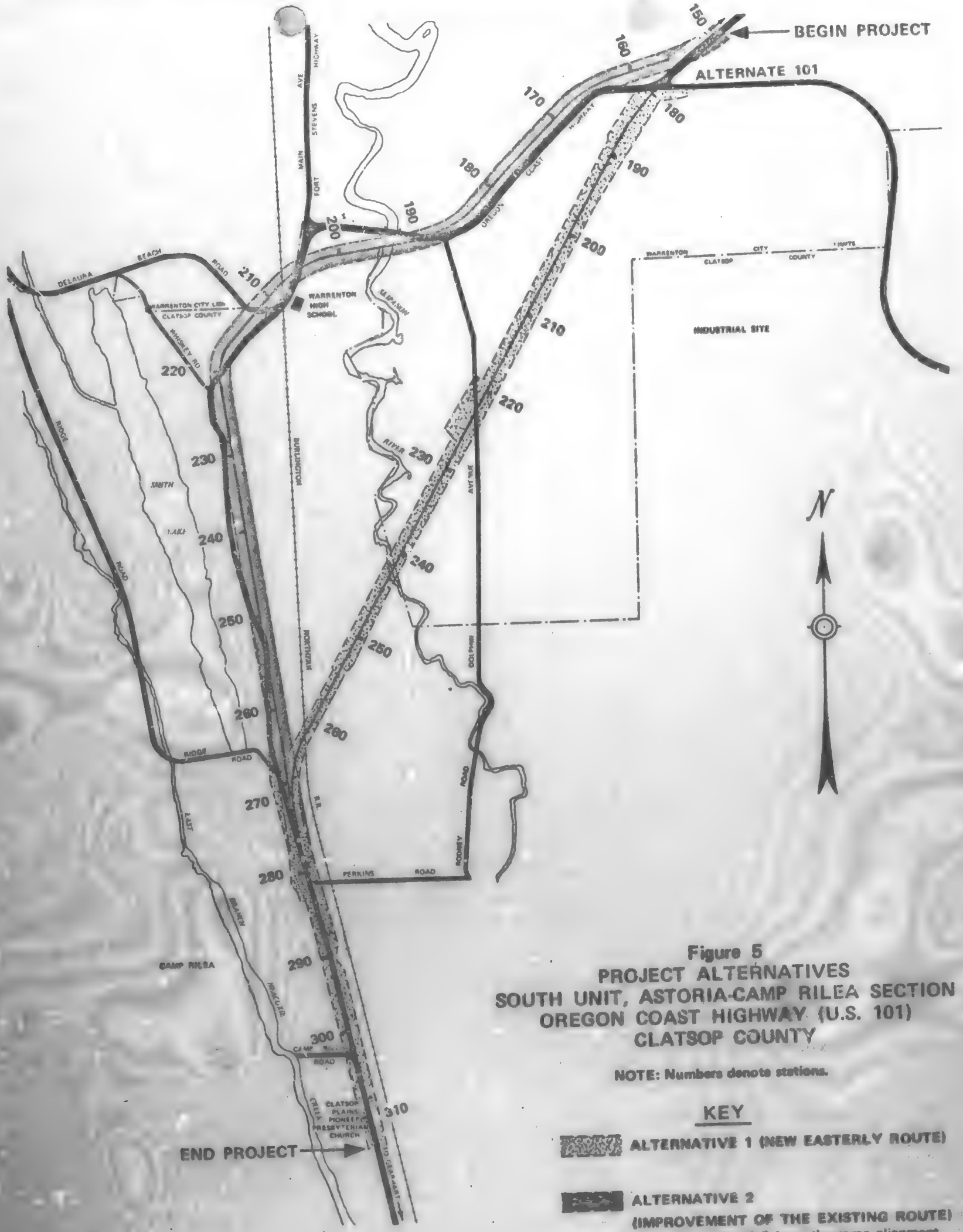


Figure 5
PROJECT ALTERNATIVES
SOUTH UNIT, ASTORIA-CAMP RILEA SECTION
OREGON COAST HIGHWAY (U.S. 101)
CLATSOP COUNTY

NOTE: Numbers denote stations.

KEY

ALTERNATIVE 1 (NEW EASTERLY ROUTE)

ALTERNATIVE 2
(IMPROVEMENT OF THE EXISTING ROUTE)

Note: Alternatives 1 and 2 have the same alignment from Station 270 to end of project.

The following is a description of each alternative followed by a table of comparison.

ALTERNATIVE 1--New Easterly Route (Selected Alternative)

The alignment of Alternative 1 (Figure 5) would provide a more direct routing for this section of the Oregon Coast Highway and would be located east of the existing highway. The new alignment traverses primarily rural, undeveloped land. The length of construction for the roadway on this alignment would be 2.8 miles.

The northerly terminus would be approximately 1,100 feet north of the intersection with Alternate U.S. 101. The southerly terminus of the project would be about 1,400 feet south of the intersection of U.S. 101 and the Camp Rilea Road. The curvature and grade of the roadway in this alternative would be improved to increase sight distance and safety.

The northerly 2.2 miles of this alternate would provide two travel lanes for through traffic. The southerly 0.6 mile would provide four travel lanes. (The four-laned section would begin about 1,000 feet south of an at-grade crossing of the Burlington Northern Railroad tracks.) The typical roadway section for most of the route would provide two 12-foot travel lanes and 8-foot paved shoulders (see Figure 6). At intersections containing 12-foot left-turn lanes, the roadway would have 6-foot shoulders, two 16-foot travel alnes and a 4-foot median. The facility at the southerly end would contain four 12-foot travel lanes, a wide median and 8-foot shoulders. Left-turn lanes would be constructed at Dolphin Road, Perkins Road-Ridge Road, and Camp Riles Road intersections.

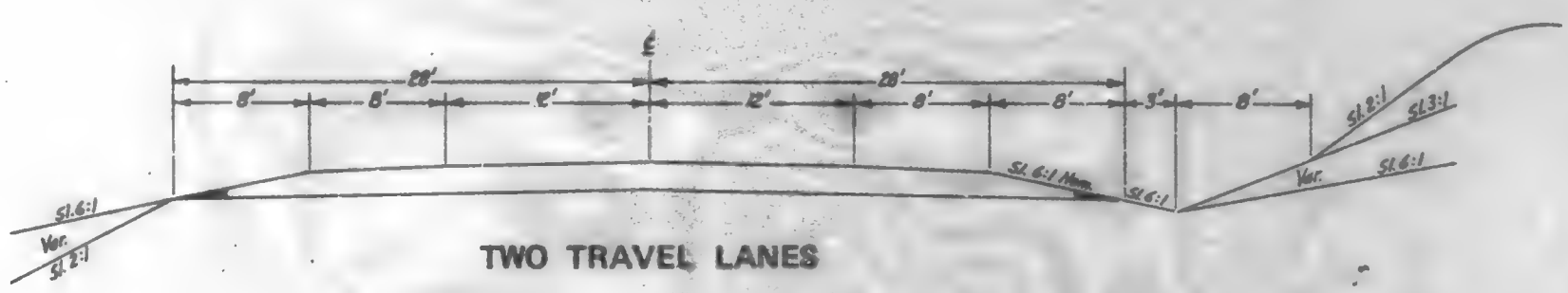
The roadway would accommodate bicycle traffic. Lanes on the shoulders of the highway would be delineated from the lanes of motorized vehicles by painted striping and would be designated by signs for bicycle usage (Class III bicycle lanes).

The new facility would have limited control access. (Limited control restricts accesses to the highway to a number consistent with traffic volumes and safety. Any access allowed may also be restricted as to use. Crossings at-grade may be permitted.) From north to south, there would be four major connections--Alternate 101 (S.E. 12th Place), Dolphin Avenue, existing 101--Perkins Road, and Camp Rilea Road. At the southern end, many private driveways would connect to the facility.

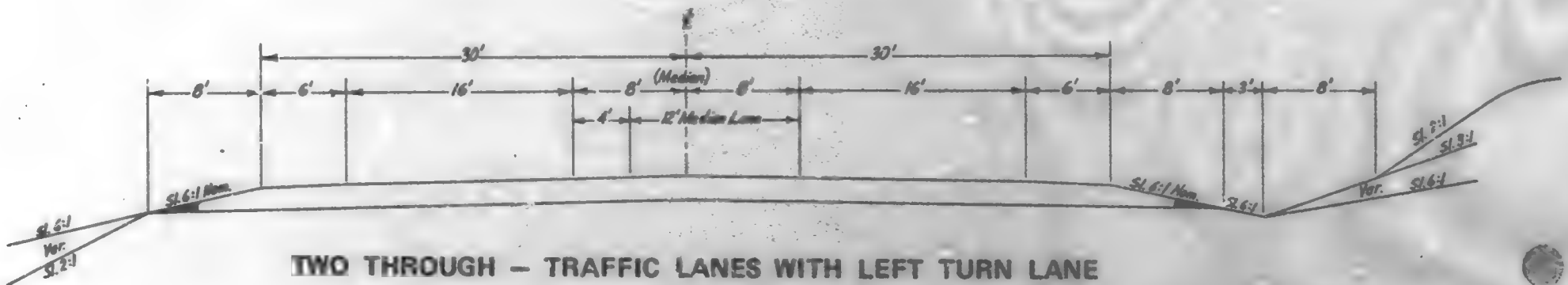
A new frontage road would be constructed with this alternative. Approximately 1,000 feet of new roadway would be built connecting existing 101 with new U.S. 101 at the Perkins Road intersection. This connection would obliterate a small portion of the existing pavement. Because of some concerns expressed at the public hearing, the highway centerline was shifted slightly and the frontage road was redesigned to abut the highway shoulder being separated by a retaining wall. This shift in the frontage road would result in two less right-of-way displacements and a total of five less parcels affected by right-of-way action. This would result in a $35,000 to $40,000 right-of-way cost savings.

Alternative 1 would require totally about seventy acres of right-of-way. The width of the right-of-way corridor varies from 200 feet to 280 feet, but the normal width would be 200 feet. In anticipation of construction on this alignment, the Highway Division purchased a majority of the right-of-way in the mid 1960's. About 54 acres were acquired at that time for this new route. The right-of-way acquisition affected thirteen residences and the relocation of the residents in those homes. Acquisition of the remaining right-of-way would affect the properties of one commercial site and five single-family residences. Therefore, six additional relocations would be required by the roadway alignment.

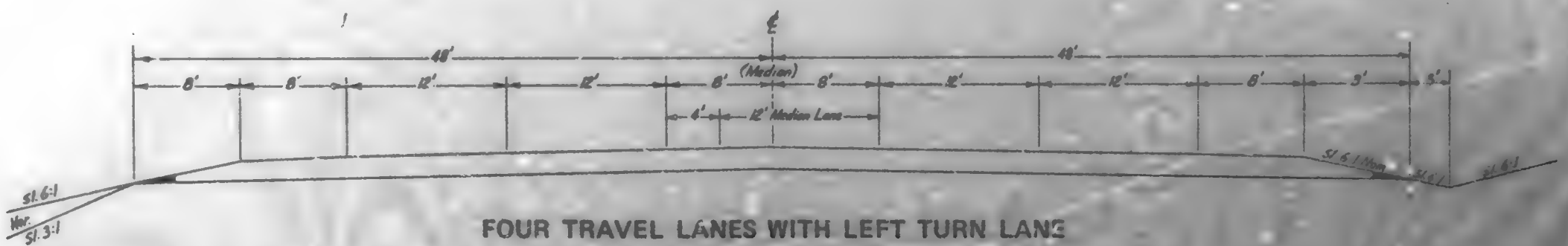
Figure 6
TYPICAL SECTIONS
ALTERNATIVE 1



TWO TRAVEL LANES



TWO THROUGH – TRAFFIC LANES WITH LEFT TURN LANE



FOUR TRAVEL LANES WITH LEFT TURN LANE

The new alignment would require a new bridge structure across the Skipanon River at a point near the city limits boundary of Warrenton. The Skipanon River would be channelized under the bridge for approximately 300 feet. The new channel would be 25 feet wide with 2:1 side slopes. A smaller channel change would be required on a minor drainage in a marshy area near the northerly end of the project. The new alignment would require an at-grade crossing of the Burlington Northern Railroad.

The route of this alternative crosses a 2,000-linear foot section of wet, boggy area that would require embankment foundation excavation and surcharge loading. (Surcharging is a construction technique whereby extra fill material is added to the embankment which accelerates the rate of consolidation of compressible foundation soils.) Other smaller sections of the project would require surcharged embankments. General excavation for the project would be approximately 207,000 cubic yards, with 27,000 cubic yards of embankment foundation material.

The rock aggregate required for surfacing would be 38,000 tons. Sand borrow for embankment and back filling would be 125,000 cubic yards. Several sources for rock and sand are available in the vicinity of the project.

No detour would be required with this project, since the existing highway could continue to be used during construction. Construction time for this alternative would be approximately two years.

The total estimated cost of this alternative is $3,290,000 (1976 estimate), including grading and paving, structure and right-of-way.

ALTERNATIVE 2--Improvement of the Existing Route

This alternative is a reconstruction of the existing route and would be 3.2 miles in length. Where Alternative 1 is a new alignment, Alternative 2

would utilize the existing alignment, where possible, with only minor readjustments to improve the horizontal and vertical alingment of the roadway (Figure 5). The termini for this alternative would be the same as for Alternative 1.

The design for Alternative 2 considered both an improved two-lane facility and a four-lane facility. Upgrading or improving this section with a two-lane facility would not achieve the desired results, i.e., separation of through traffic from local traffic. Therefore, only a four-lane roadway facility is assumed for this alternative. This design would be standard throughout the entire length of the project section. The typical section would contain four 12-foot travel lanes, a continuous 16-foot median (with left-turn lanes at major intersections) and 8-foot shoulders. There would be an at-grade crossing of the Burlington Northern Railroad tracks near the site of the present crossing. This roadway facility would include Class III bike lanes on the shoulders.

Access to the roadway would be controlled. However, access limitations would be difficult to implement due to the numerous existing connections. Major intersections along the section would be, from north to south, Alternate 101, Dolphin Road, the Fort Stevens Highway (OR 104), Whiskey Road, Delaura Beach Road, Ridge Road, Perkins Road, and Camp Rilea Road. Left-turn lanes would be provided at these intersections. The area adjoining the existing highway is heavily built up with commercial operations, residences, and a high school. Private access and driveways from these activities would be required to the new roadway although some could be changed to limit the total number of access points.

This roadway improvement would require up to 200-foot wide of right-of-way corridor for the four-lane facility. This alternative requires a total of 80 acres of right-of-way. About fifteen acres of the required right-of-way are

already in state ownership. Since the area is heavily developed, minor alignment changes to improve the curvature of the roadway would affect many residences and businesses. Three commercial operations would be displaced. Also, approximately 45 single-family residences and 29 multiple-family dwellings would be displaced by the right-of-way. Relocation assistance would be required for these residents and business owners.

A new structure across the Skipanon River would be required about one-hundred feet upstream of the existing bridge. Channelization of the river would not be required in this alternative.

The estimated total general excavation associated with Alternative 2 would be 256,000 cubic yards. Sixty percent of the excavation would be used for fill, and forty percent would be waste material. Consequently, a waste disposal site or storage site would be required. The rock aggregate required for surfacing would be 73,000 tons. Sand base would require 127,000 tons, and backfill would require 30,000 cubic yards of sand. The source of materials for this alternative would be from local sources. (Refer to the discussion of optional material sources in this statement.)

Detour routes, protective signing, and flagging would be necessary to allow safe traffic movements through the area during construction of this alternative. The length of construction time on this alternative would be two seasons or about two years.

Total cost for this alternative--including grading and paving, structure, and right-of-way-- is $5,470,000 (1976 estimate).

ALTERNATIVE 3--No-Build or No-Action Alternative

The third alternative is the no-build or no-action one. This alternative would involve not constructing an improved facility. It does assume

continuing maintenance and repair to the existing highway.

This alternative would lead to continuing use of the highway section, despite its substandard configuration in curvature, width and access points. Constructed to standards suitable for the transportation needs of an earlier time, it now is considered inadequate for the present highway user. In addition, this section has the dubious distinction of being connected to a modernized section of U.S. 101 to the north.

The existing highway is already operating at capacity. Projected traffic volumes on this section are anticipated to increase 64 percent by 1994. This increase will place a heavy burden on the existing facility, decreasing further its serviceability and safety. Presently, summer tourist traffic volumes create a congested and dangerous condition in the section. Current trends indicate continued growth of tourism in Oregon. Therefore, the future appears to be an aggregavation of the inefficiencies of the existing facility.

The economy of Clatsop County has become almost totally reliant upon the motor vehicle for land transportation because the relative isolation has made other modes of transportation impractical. Continued reliance upon an antiquated segment of a major arterial highway, in view of increasing traffic volumes, can only augment present traffic problems.

The costs in time and money to the vehicle operators on this section will increase with the age and condition of the facility. Likewise, the costs of maintaining the facility in usable condition will dramatically increase with projected traffic volume increases. Major maintenance projects, such as resurfacing, would become more frequent. Nonetheless, the basic configuration of the highway section negates adequate improvement of the section through maintenance.

The existing bridge over the Skipanon River was built in 1929 and has exceeded its useful life. Total replacement to modern standards would be desireable as soon as funding would allow (assuming termination of or lengthy delay in the subject proposal to improve the highway section). The existing bridge has a width of 24 feet. From a safety standpoint, this is inadequate and would be widened to 40 feet.

Unless the existing section is improved, safety conditions for motorized traffic, school children, bicycle users, and pedestrians will continue to worsen.

A comparative summary of the three alternatives--the new route, the existing route, and the no-build--is contained in Table 1.

TABLE 1

SUMMARY COMPARISON OF ALTERNATIVES

Feature	Alternative 1 (Easterly Route)	Alternative 2 (Improve Existing Route)	Alternative 3 (No-Build)
1. Alignment	New	Same, with improvements to the existing alignment.	Same
2. Termini	North: Point approx. 1,100 feet north of intersection with Alternate 101 South: Point approx. 1,400 feet south of Camp Rilea Rd.	Same	Same
3. Length (miles)	2.8	3.2	3.3
4. Maximum Grade	1.9%	3%	3%
5. Total Rise and Fall	30 feet	86 feet	120 feet
6. Total Central Angle	63^0 40'	200^0	400^0
7. Maximum Curve	4^0 30'	5^0	20^0
8. Travel Lanes	Two, with short section of four	Four	Two
9. Roadway Section	Two 12-foot travel lanes with 8-foot paved shoulders. At the southerly end, four 12-foot travel lanes, 16-foot median and 8-foot shoulders.	Four 12-foot travel lanes, 16-foot median for channelized turning movements, and 8-foot paved shoulders.	Two 12-foot travel lanes and variable 3- to 6-foot shoulders.
10. Bikeway	Class III	Class III	None

Feature	Alternative 1 (Easterly Route)	Alternative 2 (Improve Existing Route)	Alternative 3 (No-Build)
11. Access	Limited Control	Limited access control is not feasible.	Controlled by Permit.
12. Structures	Bridge across Skipanon River to accommodate two travel lanes.	Bridge across Skipanon River to accommodate four travel lanes.	Same as existing.
13. Right-of-Way	Width: 200-foot corridor with some wider areas. Required: 70 acres Improvement breakdown: 1 Commercial 17 Single-Family Residences (13 residences have been acquired.)	Width: 200-foot corridor Required: 80 acres Improvement breakdown: 3 Commercial 45 Single-Family Residences 29 Multiple-Family Dwellings	Width: sufficient for two travel lanes. Required: None Improvement breakdown: None
14. Benefit-Cost Ratio and Rate-of Return*	1.81/12.21%	1.07/6.59%	----
15. Construction Time	Two years	Two years	None
16. Total Construction Cost, including grading and paving, structure and right-of-way (1976 estimate).	$3,290,000	$5,470,000	None

*The Benefit-Cost and Rate-of-Return of the build alternatives are discussed in detail in the economy and employment section of this statement and in Appendix F. Also, refer to Table 7 for project cost data.

Public Hearing

At the public hearing in August, 1976, only a few major concerns were expressed. One was the location of the Frontage Road at Ridge Road. The design was subsequently changed as a result of this concern. Another item was the time frame of the project. This is now a Priority I project, scheduled for construction in F.Y. 1979. A third item was a public approval of Alternative 1. No comments were received in favor of Alternative 2 or the no-build.

Coast Guard Hearing

In February, 1976, the U.S. Coast Guard received requests that a public hearing be held on the new Highway 101, Skipanon River Bridge before a bridge permit was issued. The hearing was subsequently held May 4, 1976 in Warrenton. The main concern of the parties requesting the hearing was the navigability of the Skipanon River and the level of the bridge above the water.

Prior to the hearing, two bridge alternatives were evaluated. One alternative would provide 3 feet more clearance than the proposal, and the other would provide 6 feet more than the proposal. Both alternatives would require additional fill along the highway to bring the road up to bridge elevation and would cost an additional $41,000, and $103,000 respectively, over present estimated construction costs. Neither alternative would require additional right-of-way.

Subsequent to the hearing it was discovered that bridge drawings were in error, and that the bridge would provide nearly 2 feet more clearance over mean high water than originally proposed. This would provide much of the 3 feet additional clearance requested by local groups.

Additionally, according to the U.S. Coast Guard:

"For the Skipanon River to be developed for navigation, other than presently provided from the control structure at 8th Street and upstream

there from, the three water control structures would require removal, the three bridges would probably have to be raised to provide more vertical clearance, locks would have to be installed to maintain the level of Cullaby Lake and the channel would have to be dredged. There does not seem a reasonable possibility that anyone would finance or undertake such a project, especially in light of the existing flood control project and the benefits it provides." -U.S. Coast Guard letter of May 18, 1977 to Clatsop County Board of Commissioners.

As a result of the Coast Guard hearing on the navigability of this proposed Hwy. 101, Skipanon River Bridge (Alternative 1), the Highway Division will proceed with developing bridge designs an clearances as proposed prior to the hearing.

Selection of Alternative

Subsequent to the Highway Division Public Hearing in Warrenton, Alternative 1 was selected for construction on the following basis:

A build alternative was selected over the no-build because a reconstructed or relocated highway would provide for the economic-transportation needs of Clatsop County where the existing highway cannot.

Alternative 1 would cost 40 percent less to construct than Alternative Two, and would be shorter, would have less rise and fall, and would have less curvature. Although Alternative One would have 2 lanes compared to 4 lanes for Alternative 2, the highway would have sufficient right-of-way to expand to 4 lanes. For the investment, Alternative One, by virtue of its having limited controlled access, would have a greater traffic flow capacity.

Although Alternative One would have the greatest impact on the natural environment, Alternative Two would have the greatest impact on the quality of the socio-economic environment. Alternative 1, therefore, represents the most favorable alternative for this section of the Oregon Coast Highway.

ENVIRONMENTAL IMPACTS OF PROJECT ALTERNATIVES

Natural Environment

Topography and Geology

The south unit of the Astoria-Camp Rilea Section traverses a portion of the low-lying depositional area known as the Clatsop Plains. The topography is formed by the coastal lowland and the flood plain portion of the Skipanon River. Geologically, the entire length of the project has much the same type of terrain, soils, bedrock, ground water levels and drainage (Figure 7).

The Skipanon River meanders northerly across the project area. The river has established a narrow flood plain having a series of knolls and narrow depressions, the latter containing wet organic or peat soils that are highly compressible. These soils have developed as the result of the impounding of the surface drainage by the narrow sand ridges that extend intermittently north-south through much of the plains area. The area is underlain by siltstone and claystone with subordinate sandstone and shale. Overlying the bedrock formations are deposits of terrace silty clays and peat, locally interbedded. These deposits reach depths in excess of fifteen feet along the alignment. Dune sand ridges occur intermittently. Highway elevations are about nine feet above mean sea level on the plain at the north end of the project, and about 36 feet above mean sea level on the sand ridge at the south end.

Impacts. The new alignment for Alternative 1 would cross the very wet, boggy flood plain area of the Skipanon River and adjacent flat, low-lying bottomland. The new alignment would have little effect on the overall physical aspects of the topography because of its flatness and uniformity. Alternative 1 would not destroy any topographical features of note.

Alternative 2 would affect the topography minimally, since no topographi-

cal features of significance are crossed. The no-build case, Alternative 3, would have no impact.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Topography	a. Minimal loss of the scenic and natural aspects of a remote and generally unused area.	a. Minimal loss of scenic and natural beauty.	a. No change

Mitigation of Adverse Impacts. No mitigation measures are planned.

Soils and Ground Water

The United States Soil Conservation Service, Department of Agriculture, has mapped three soil associations--groups of soils geographically associated in a repeating pattern--in the project area: (1) The Walluski-Knappa, in the northern portion, has moderate limitations for roads; (2) the Coquille-Tidal marsh (fresh)-Clatson, in the south-middle portion, has severe limitations for roads: and (3) the Westport-Gearhart Dune land, in the southern-most portion, has moderate limitations for roads.

Table A-1 in Appendix A lists the engineering characteristics of the lowest of the three soil depths (to 60 inches) generally tested by the Soil Conservation Service. Also in the appendix (Figure A-1) is a boring log of the terrace alluvium in the Warrenton area.

The seasonal water table in the lowland project area is at or near the ground surface much of the time because of the dune-blocked surface drainage

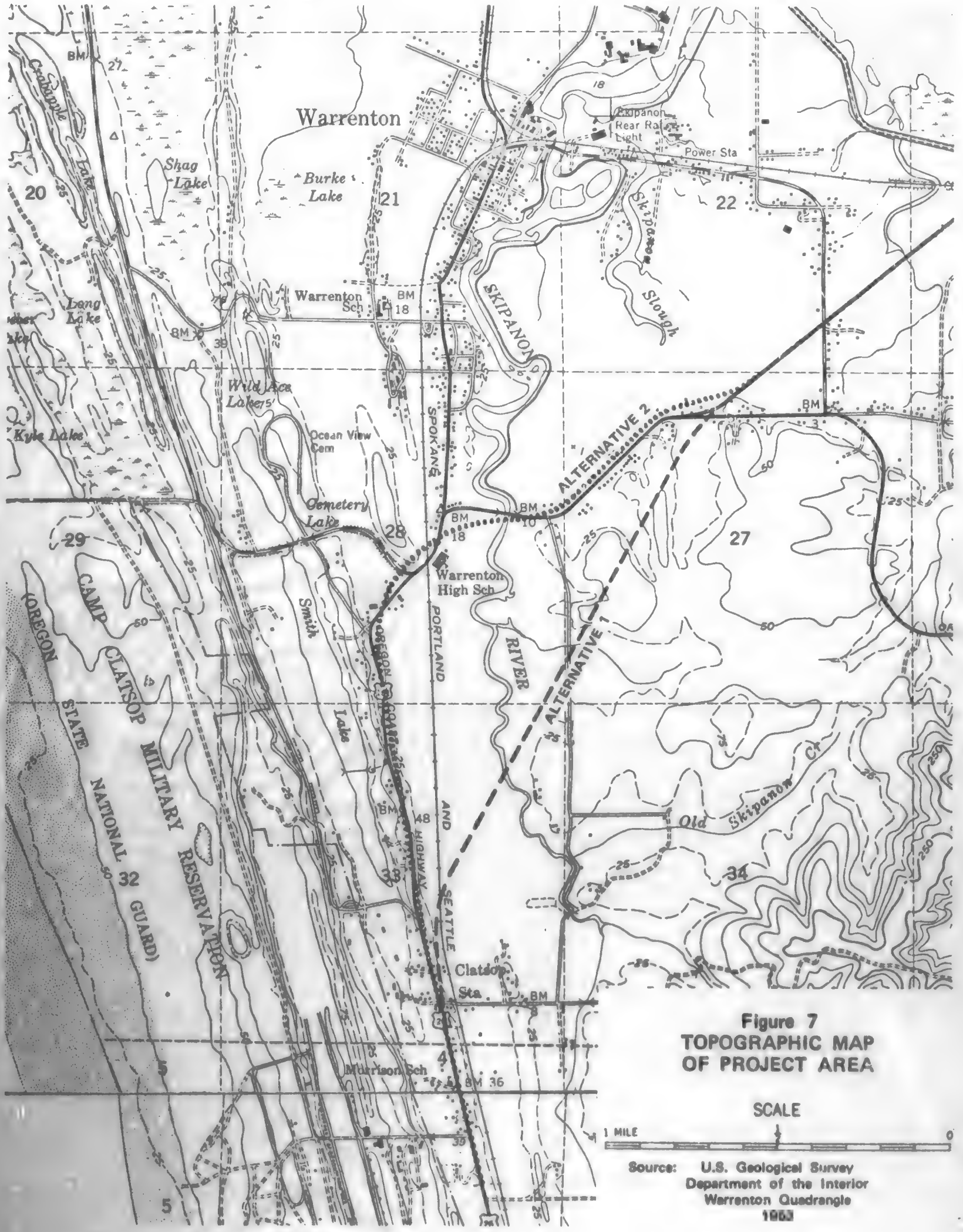


Figure 7
TOPOGRAPHIC MAP
OF PROJECT AREA

Source: U.S. Geological Survey
Department of the Interior
Warrenton Quadrangle
1953

and the permeable soils. The soils in the northern portion are described by the Soil Conservation Service as generally being saturated to within two or three feet of land surfaces from November through May; soils in the south-middle portion, from at land surface to two feet of land surface from October through June; and soils in the southernmost portion, from six feet or more of land surface.

A high ground water table contributes to highway construction problems by producing dense vegetation that decays to form organic, highly compressible soils and peat. Mitigation is generally achieved by drainage, surcharging, or by subexcavation and backfilling where the incompetent soils are pronounced.

Impacts. Except for the sand ridges and some sandstone outcroppings, most soils in the area are severly limited for establishing firm foundations for roads and streets because of the high water and organic content. Alternative 1, the new routing, would cross primarily undeveloped land. The compressible soils in much of the area cannot support the highway and structures without considerable foundation preparation, which would require additional material, manpower and energy.

Some surface warping has occurred in the Warrenton land portion of the north unit of the Astoria-Camp Rilea Section during the past 10 years (pre-1975), but the associated maintenance costs have been negligible. Some differential settlement would be expected to occur in various areas through the south unit, but it is expected that normal maintenance would adequately correct such problems. Compacting the soils for the new alignment may change ground water movement locally, but it is believed that culverts would provide adequate transmission. No ground water build-up has been caused by construction of the north unit highway across similar soils.

The soils and ground water impacts for Alternative 2 would be minimal. The improvement of the existing alignment would be along sand ridges and would have little impact. There would be no changes associated with Alternatve 3.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Soils and Ground Water	a. The soils in the lowland area have high water and compressible organic content (inc. peat). Special construction techniques to establish a firm roadbed and structures in these soils would require additional materials, manpower, and energy.	a. Minor impact	a. No change
	b. Ground water movement may change locally.	b. Minor ground water movement.	
	c. Twenty-two ac. of soil would be exposed during a relatively short post-construction period.	c. Few acres of soil would be exposed a relatively short time.	

Mitigation of Adverse Impacts. Since soils found in the new alignment (Alternative 1) are severely limited for roads, the Oregon State Highway Division has determined that it would be feasible to surcharge rather than subexcavate much of the roadway foundation. Table 2 identifies by station numbers the problem areas and explains mitigational procedures which would be taken. An elaboration of the information found in the table is contained in Appendix A.

The construction of the new alignment would expose soil during a relatively short post-construction period. Although the exposure period would be short due to rapid growth conditions in the area, roadside seeding and mulching

Table 2

GEOLOGIC HAZARDS

(Alternative 1)

STATIONS	PROBLEM	MITIGATION	COMMENTS
168+00 - 175+75	None anticipated.	None planned.	North end taper section to Highway 101. Culvert pipe at Station 169+75.
175+75 - 183+35	None anticipated.	None planned.	Intersection area with Highway 101 and its alternate. Culvert pipe at Station 177+65.
168+00 - 180+00	None anticipated.	None planned.	Culvert pipe at Station 169+75. Culvert pipe at Station 177+65.
180+00 - 188+00	Unstable foundation soils extending 9 to 15 feet below land surface, made up of layers of silt and peat high in water content.	3-1/2 feet of surcharge (4-1/2 feet between Stations 184+00 - 187+00) to be placed on fill to accelerate rate of compaction.	When fill has stabilized, excess surcharge material will be wasted on the fill side slopes. Culvert pipe at Station 184+75.
188+00 - 211+25	Water encountered 11 feet below land surface at Station 190+00, and 9 feet below land surface at Station 194+50.	Culverts to be installed to provide adequate drainage.	Adequate drainage is essential, for the highway and for potential housing or industrial development.
211+25 - 212+50	Poor foundation soil found to depth of 13 feet below land surface.	Layers of sand and/or rock to be deposited and compacted until proper grade and stabilization are obtained.	Culvert pipe at Station 212+00.
212+50 - 218+25	17-foot deep cut through clayey shale, with a sharp drop-off on right (west) side of alignment.	Slope on left side of cut to be no greater than 2:1 (2 feet horizontal to 1-foot vertical). Right side may require erosion control or stabilizing.	Cut material should be considered as possible shoulder protection for drop-off area on right side of road.
218+25 - 227+75	A spongy crust 1 to 2 feet thick caps unstable foundation soils 7 to 8 feet deep. A small creek crosses the alignment at Station 221+00.	Spongy surface crust to be removed. Sand and/or rock fill having maximum height of about 6 feet to have 3-1/2 foot surcharge, including approaches to Dolphin Avenue. Small creek to be rerouted through culvert pipe at Station 221+12.	Culvert pipe at Station 226+15.
227+75 - 229+75	None anticipated.	None planned.	This 200-foot long cut has a maximum depth of about 10 feet. Standard design ratios of 3:1 or 4:1 are adequate.
229+75 - 233+25	Unstable foundations soils occur to depth of about 6 feet.	Fill section will be stabilized with compacted layers of sand and/or rock and surcharged 3½ feet.	Culvert pipe at Station 232+00.
233+25 - 235+50	None anticipated.	None planned.	This 225-foot long cut has a maximum depth of 14 feet. A slope ratio of 2:1 or 3:1 is adequate.
249+00 - 269+50	Unstable foundation soils occur to depths averaging 5 feet. Alignment crosses Burlington Northern Railroad tracks at Station 263+65.	Fill section will be subexcavated and backfilled to grade with clean sand. An additional highway stopping lane is planned on both sides of the railroad tracks in the crossing area, making 4 lanes.	Sand backfill to extend at least 2 feet above water surface. Culvert pipes will be placed on both sides of and parallel to railroad tracks.
269+50 - 274+00	None anticipated.	None planned.	This 450-foot long cut in sand has a maximum height of about 9 feet. The slope ratio should be no steeper than 3:1 because the sand has no binding. A culvert pipe is planned under the highway and Ridge Road approach at Station 272+00.
274+00 - 295+00	None anticipated.	None planned.	Culvert pipe is planned north-south under the Ridge Road approach to highway.
295+00 - 307+30	None anticipated.	None planned.	To match grade with existing Camp Riles Road.
307+30 - 317+00	None anticipated.	None planned.	South end taper section to Highway 101.

is presently planned to cover approximately twenty-two acres. Other methods of erosion control would either be stipulated in the contract or, in some unforeseen situations, be decided in the field during construction. The work is done in stages along the project as soon as practicable after areas to be seeded and mulched are completed. To assure that there is no undue delay in applying the erosion control measures, the engineer can direct the contractor when to perform the work. Inspection and maintenance of erosion control devices, both temporary and permanent, is standard policy of the Oregon State Highway Division.

Federal Highway Administration specifications for Federal-Aid programs in which grading is involved stipulate the following:

> Under no conditions shall the amount of surface area of erodible earth material exposed at one time by excavation, borrow or fill within the right-of-way exceed 750,000 square feet (17.22 acres) without prior approval by the Engineer.
>
> and
>
> Under no conditions shall the surface area of erodible earth material exposed at one time by clearing and grubbing exceed 750,000 square feet without approval by the Engineer.

The engineer may increase or decrease the amount of surface area of erodible earth material to be exposed at one time by clearing and grubbing, excavation, borrow and fill operations, as determined by his analysis of project conditions.

Oregon State Highway Division procedures insure that all vertical and horizontal monuments affected by a proposed project are relocated. It is unknown at this time whether or not there are monuments in the specific project area. In the case of National Geodetic Survey monuments, notification is made directly to the National Geodetic Survey mark maintenance engineer.

Material Requirements and Sources

Impacts. Construction of this project in the new alignment (Alternative 1) would require the commitment of 125,000 cubic yards of sand borrow for the base

TABLE 3

MATERIAL SOURCES

SOURCES	H. JOHNSON & SONS QUARRY	BARTH FALLS QUARRY	OLSON PROSPECT	UNTESTED PROSPECTS	WARRENTON SAND PIT	TAGG SAND PIT
LOCATION	T.5N., R.10W., Sec. 4, SE¼ NE¼, 3 mi. S of Seaside on E side of Hwy. 101	T.7N., R.8W., Sec. 28, SE¼ NW¼, 5 mi. E of Olney on N. side of Hwy. 202	T.7N., R.9W., Sec. 30, NE¼ SE¼, E. side of Lewis & Clark River near Melville	T.7N., R.10W., Sec. 35; & T.6N., R. 10W., Sec. 2 & 11, foothill area E of Gearhart	T.8N., R.10W., Sec. 21, SW¼ SW¼, on S side of SW 9th St., ¼ mi. W of Main Avenue, Warrenton	T.7N., R.10W., Sec. 4, SE¼ NE¼, 0.2 mi. S of Camp Rilea Road on E. side of Hwy. 101
HAUL DISTANCE	About 13 mi. N on Hwy. 101 to S end of project	Roughly 17 mi. to N. end of project	Roughly 14 mi. to both N & S ends of project	About 1 mi. to Hwy. 101, then 6 mi. to S end of project	About 2 mi. to N end of project	About 0.2 mi. to S end of project
ACCESS	Short rocked road	Adjacent to hwy.	Repair bridge	None	Adjacent to street	Short road
ROCK TYPE	Well-fractured basalt	Basalt	Basalt and top layer of gravel	Basalt	Dune sand	Dune sand
OVERBURDEN	Moderate	Moderate	Moderate	Undetermined	None	None
PLANT	Crusher	None	None	None	None	None
STOCKPILE SITE	Large	Adequate	Adequate	Undetermined	None required	None required
QUANTITY	Adequate	Adequate	May be adequate	Undetermined	Adequate	Adequate
OWNERSHIP	Private	Private	State	Private	City of Astoria	Private
RECLAMATION	Exempt	Plan on file	Plan required	Plans required	Unresolved	Plan on file
IMPACTS	Degradation of terrain, danger to highway traffic, irretrievable commitment of rock	Degradation of terrain, danger to highway & bridge traffic, irretrievable commitment of rock	Degradation of terrain, danger to highway traffic, irretrievable commitment of rock	Degradation of terrain, danger to highway traffic, irretrievable commitement of rock	Temporary unsightlyness, danger to highway traffic, irretrievable commitment of sand	Temporary unsightlyness, danger to highway traffic, irretrievable commitment of sand

and 38,000 tons of surfacing aggregate. General excavation would include 207,000 cubic yards, and 27,000 cubic yards of embankment foundation material would be excavated, much of which would be used as fill. All excavated material would either be used as fill or would be spread along the right-of-way. Therefore, a waste site or storage site would not be required for Alternative 1.

The Oregon State Highway Division has investigated four rock sources and two sand sources in the vicinity of the project. Comparative data on these material sources, including data on enviornmental impact, are contained in Table 3. The descriptions of the optional sources in Table 3 and Appendix B are general in nature and relate mainly to the location and nature of the deposits. All of these sources are under consideration as optional sources at this stage in project development. A discussion of the haul route impacts is contained in the construction activities section of this statement.

Alternative 2, the improvement of the existing highway route, would require approximately 256,000 cubic yards of general excavation (assuming 60 percent for fill and 40 percent waste). This alternative would require the establishment of a waste or storage site. The quantity of aggregate needed for surfacing would be 73,000 tons.

The sand base would require about 127,000 tons of sand. Backfilling would require 30,000 cubic yards of sand. (All material quantities for Alternative 2 are reconnaissance estimates only.)

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Materials Requirements and Sources	a. A total of 125,000 cubic yards for the base and 38,000 tons of material for surface would be required.	a. About 73,000 tons of aggregate would be required for surfacing. Sand backfill would require 30,000 cubic yards; sand base, 127,000 tons.	a. Continued maintenance of the existing section would require the use of materials and money.

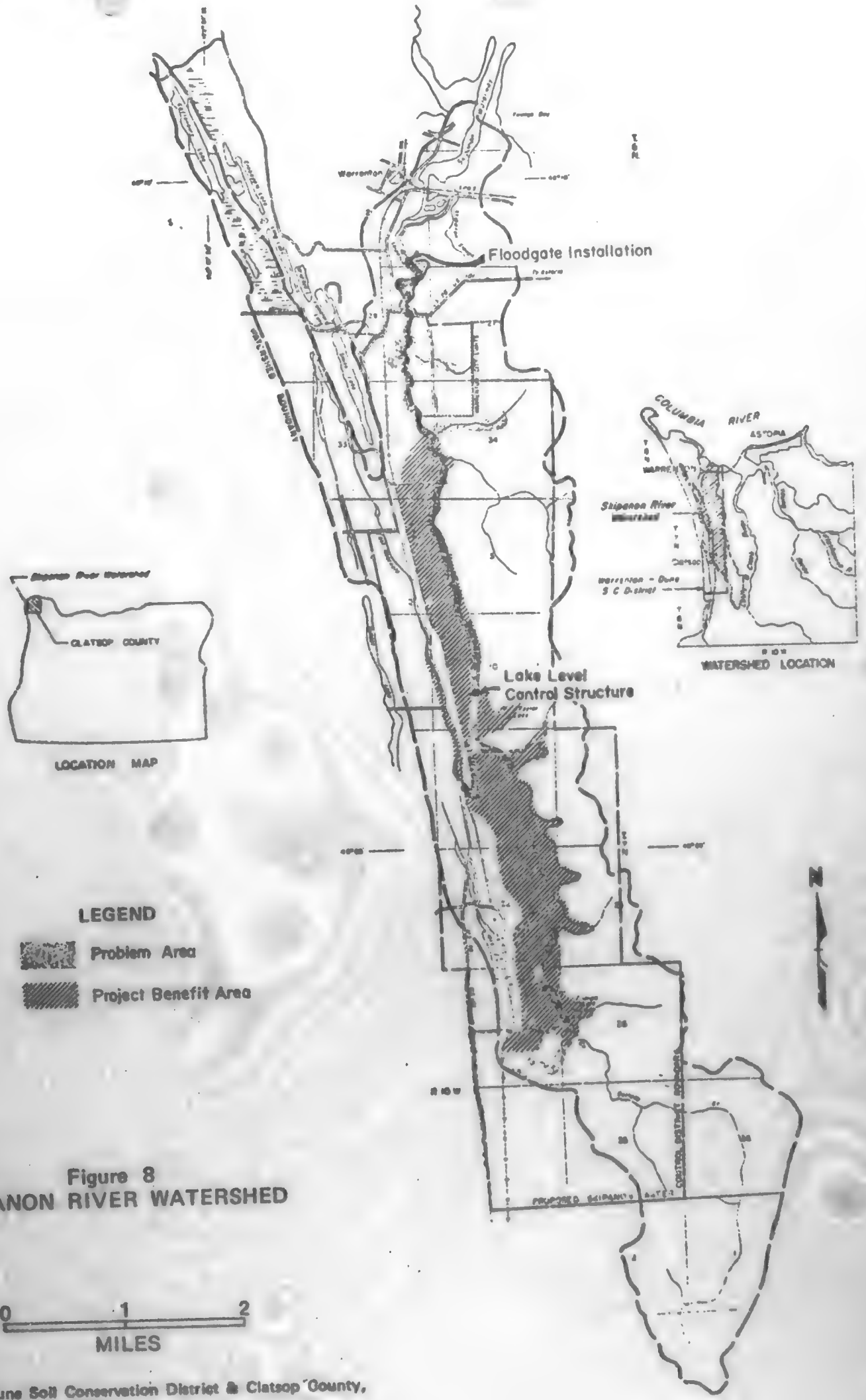


Figure 8
SKIPANON RIVER WATERSHED

Source: Warrenton Dune Soil Conservation District & Clatsop County, Watershed Work Plan, 1960.

Alternative 1	Alternative 2	Alternative 3
b. A total of 233,000 cubic yards of material would be excavated from from the roadway, much of it to be used as fill.	b. General excavation would be 256,000 cubic yards, of which 40% would be waste material.	
	c. A waste or storage site would be required.	

Mitigation of Adverse Impacts. Adverse environmental impacts associated with the materials source and waste site will be lessened by adherence to all pertinent statutes, laws, ordinances, rules and regulations of the Federal, state and local governments. Section 106, Standard Specifications for Highway Construction (Oregon Transportation Commission, 1974), provides for development, operation, and reclamation of sources and storage areas. Special provisions and supplemental standard specifications written into the contract would provide additional protection of the environment. The contractor must furnish to the Highway Division copies of an approved surface mining permit from the State Department of Geology and Mineral Resources and an approved land use permit from the local agency or agencies having jurisdiction over land use in the area.

Skipanon River Flood Plain and Hydrology

The watershed of the Skipanon River (Figure 8) covers an area of approximately 16.5 square miles, or 10,480 acres in Clatsop County. The flood plain area of the watershed consists of about eleven percent of the total, or 1,175 acres.

A portion of the surface drainage originates from Coffenbury Lake, which flows southward and picks up additional water from several small lakes, and then

becomes East Neacoxie Creek. Near the middle of the watershed, it turns northward and joins water flowing from Cullaby Creek and Cullaby Lake. The two drainages merge near the north end of Cullaby Lake and form the Skipanon River, which itself flows into Youngs Bay and then the Columbia River.

As the variation in elevation is less than ten feet between the headwaters of the Skipanon River and the Columbia River, the land bounding the shore has been subject to flooding. Flooding from the Skipanon River is now partially controlled by structural measures, including a tidal floodgate and earth dam downstream (at river mile 0.8 downstream from the existing U.S. 101 structure across the river), a Cullaby Lake spillway (0.8 mile downstream of Cullaby Lake), and channel improvements. The flood control structures were installed by Clatsop County and the Warrenton Dune Soil Conservation District (Soil Conservation Service, Department of Agriculture) in 1962. The chief purpose of the floodgate upstream from the highway bridge is to provide temporary floodwater storage. The top elevation of the dike is 11.3 feet above mean sea level. All benefits from the project would occur in a narrow band along the stream, generally to the west, between the floodgate and the marsh area south of Cullaby Lake.

When functioning properly, this system limits the maximum discharge of river to about 900 cubic feet per second (cfs) through the project area. A discharge of 900 cfs is equivalent to a 50-year frequency flood on this river. Control of the river is maintained at elevation 3.5 feet during low flood periods. At times of maximum discharge water is expected to reach the five-foot elevation mark, with velocities ranging from two to three feet per second. At this elevation a small flood plain area adjacent to the main channel will be inundated to a depth of one foot. Before flood control, combinations of heavy runoff and high tides caused the river to reach an elevation of 6.7 feet at times during the past 40 years, with an elevation of 6.5 feet occurring about every four to five years.

The tide gates have been designed to permit the upstream passage of anadromous fish and other aquatic organisms during ebb tide. The lake level control structure downstream of Cullaby Lake has a four-step fish ladder which permits fish passage.

Due to the low average elevation of Warrenton (eight feet above mean sea level), dikes have been constructed along the boundaries of the Skipanon River channel to protect adjacent flood plain lands from periodic inundation during high tides.

Impacts. Both Alternatives 1 and 2 would cross the Skipanon River flood plain, although the flood plain area is now protected from flooding by dikes.

In the case of Alternative 1, where fill would be placed across what is primarily swampland, some impediment of surface and ground water flow could occur. Flow would be detained rather than blocked, as provisions would be made for adequate passage of water through the highway facility. Alternative 2 would require that the existing culverts be extended or replaced to prevent blockage of water flow.

None of the alternatives under consideration would adversely affect the Skipanon River tide gate or spillway. Minor alteration of the dikes would occur with either Alternative 1 or Alternative 2, since both alternatives entail new bridge construction. Little effect on the hydraulic character of the Skipanon River is expected with Alternative 1 and 2, and none is expected with

Alternative 3 (no-build). Bridge construction and in-channel pier placement which would occur under either of the first two alternatives is expected to cause minimal impediment to water flow, both during and after construction. The channel change (25 feet wide and about 300 feet long, with 2:1 slopes), associated with Alternative 1 would not cause significant increases in water velocities (i.e., velocities are not expected to exceed two to three feet per second at a peak flow of 900 cfs). Local alteration of erosional/depositional patterns would occur. The natural channel high water elevation of five feet is not expected to be any higher at the channel change site after construction.

	IMPACTS		
	Alternative 1	Alternative 2	Alternative 3
Skipanon River Flood Plain and Hydrology.	a. Moderate encroachment on the diked area of the flood plain. b. Minor impediment of water flow. d. Water velocity increases near channel change (local only). e. Minor alteration of erosion/depositional patterns near channel change and bridge piers. f. Minor alteration of dikes.	a. Slight increase in flood plain (diked area) encroachment. b. Extension of existing fill. c. Minor alterations of erosional/depositional patterns near bridge. d. Minor alteration of dikes.	a. No change

Mitigation of Adverse Impacts. The flood plain encroachment area would be kept to a minimum. Fills would be seeded and mulched to minimize erosion.

The drainage capacity would be maintained to minimize water flow impediment. Culverts would be placed, replaced or extended through the fill to allow movement of surface and ground water.

Although a channel change in the Skipanon River would be made in conjunction with Alternative 1, encroachment would be kept to a minimum to prevent local water velocity increases. Vegetative regrowth would be encouraged in order

to prevent land erosion. Bridge piers would be designed and oriented in a manner that would minimize alteration of local current regimes. The channel change would be designed to simulate natural conditions.

Only small portions of the dikes would be altered to permit bridge construction for Alternative 1 and 2. The altered areas would be used to accommodate bridge approaches and would not allow flood waters to flow beyond the Skipanon River floodway. Further, the approaches would be seeded and mulched to minimize erosion of the approach fills into the river. (Right-of-Way from the dikes or easements to construct on the dikes would require a permit from the City of Warrenton, with concurrent approval from the U.S. Army Corps of Engineers.)

Aquatic Habitat

The portions of the Skipanon River and its tributaries which lie in the project area are of moderate quality as aquatic habitat.

The Skipanon River on the upper (south) end of the project area is slightly acid (6.5 to 7.0) in terms of the acid-alkaline balance (pH). The water in the river is highly colored; the coffee-brown color characteristic of the river is probably imparted to the water by organic humic acids which are derived from surrounding decayed swamp vegetation. The turbidity is moderate, measurements indicating levels of approximately 35 nephelometric turbidity units (NTU) on the data sampled. This portion of the river demonstrated variable dissolved oxygen content (5 to 10 milligrams per liter) and moderate nitrate and slightly elevated phosphate (0.24 mg/l) concentrations. Temperatures are moderate (60-65° F) and stream bank vegetation, while very dense, does not overhang the streambank extensively. Riparian vegetation consists primarily of reeds (Common Reed and Reed Canary Grass), backed by low shrub-swamp vegetation, (Douglas spirea/Cow Parsnip/Slough Grass) or high shrub-swamp vegetation (Willow-Twinberry).

Further downstream, opposite the Warrenton High School fish-rearing pond

Skipanon River south of U.S. 101 crossing

Skipanon River near Dolphin Avenue crossing

(about 750 feet upstream of the existing U.S. 101 bridge), the oxgyen concentration measured two milligrams per liter (mg/l) on August 19, 1975, the sampling date. The turbidity was higher than upstream (115 NTU), as was the acid-alkaline balance (pH 7.2). Conductivity measurements indicated that the saline influence of the estuary, with attendant chemical characteristics, is evident in the river at the Warrenton High School diversion. (The salinity was 4.2 parts per thousand at low high tide at this point.) The influence is much less pronounced 1.3 miles upstream at the Dolphin Street Bridge (Salinity 0.25 ppt at low high tide). The river, therefore, grades from being nearly estuarine to being primarily fresh water in nature, north to south, through the project area.

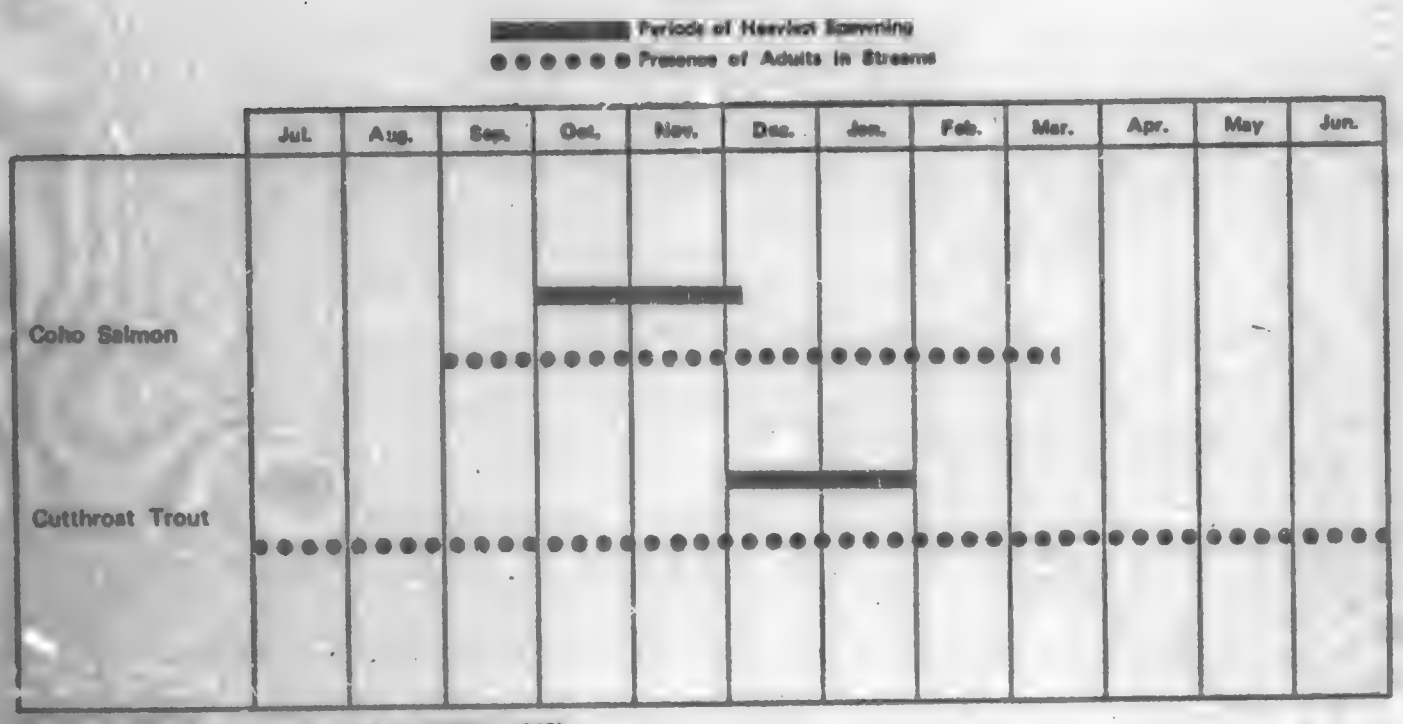
Tributaries to the river, including one which crosses Dolphin Road and one which drains into Skipanon Slough, are of lower quality as aquatic habitat. Dissolved oxygen concentrations ranged from 0 to 2 milligrams per liter on the sampling dates. The acid-alkaline balance levels (pH) were between 6.0 and 6.5. The water was highly colored and turbid (135 NTU), and large quantities of a reddish-brown precipitate were observed. This precipitate, ferric hydroxide, is derived from the abundant supply of iron and manganese in nearby peat deposits. These elements are first entrained in bog waters with low pH levels and low oxidation-reduction potentials (eH) and are later oxidized and precipitated, with some manganese being precipitated with the ferric hydroxide. This, then, is a natural process and is not indicative of local industrial or domestic pollution.

The Skipanon Slough tributary, which crosses existing U.S. 101 near the northerly terminus of the project, had very low flow on the date sampled (July 23, 1975), and was distinctly reddish-brown in color. Dissolved oxygen was near zero, and the water surface was extremely oily. The acid-alkaline balance (pH) was near six, and the ferric hydroxide precipitate previously mentioned was

abundant. Abundant vegetation (willows, elderberry, horsetail) evidently keeps water temperatures cool. The tributary was completely dry upstream at that time, exposing only a yellow stream bed characteristic of dried ferric hydroxide and various aquatic plants (Typhia, Scirpus, Juncus). High water marks indicated that water at peak discharge rises to the same level as the road bed, although it probably does not go over the roadway itself.

Aquatic organisms known to inhabit the river include two species of anadromous fish: coho salmon and sea-run cutthroat trout. These fish spawn a considerable distance upstream of the project area, in upper Cullaby Creek. They use the river primarily as a migration route, although the project area has some rearing potential. It is not considered critical aquatic habitat, however. Table 4 shows the primary migration periods of these fish through the project area.

Table 4
PERIODS WHEN ANADROMOUS FISH ARE PRESENT
OR SPAWNING IN THE SKIPANON RIVER SYSTEM



(Source: Oregon Department of Fish & Wildlife, 1988)

Catfish, yellow perch and crayfish have been caught in the river by local fishermen. Also, numerous estuarine species of fish, benthic organisms and plankton wander up the river, panticularly at the lower end of the project, since the river is contiguous with the Columbia River estuary. Numerous zooplankton were observed in both the river and its tributary on the date sampled (August 20, 1975). Calanoid copepods dominated: lesser quantities of cyclonoid copepods, cladocerans, Volvox colonies, and sponge spicules were present. Phytoplankton were less abundant. A few green algae were observed.

Smith Lake, to the west of existing US. 101, drains north to Cemetery Lake. This lake has a bottom of peat and mud, dense beds of aquatic plants (Potamogeton, Myriophyllum, Anachris), and many stands of emergent plants (Nuphar, Scirpus, Typha). Typical of boggy lakes, the water is colored by humic acids, is moderately turbid (55 NTU), and has low pH, alkalinity, hardness and oxygen. Among the plankton, desmids (plankton which prefer such chemical conditions) are the dominant group of microflora (McHugh, 1972). Rotifers, Volvox, cladocerans, ostracods, calanois ccpepods, diatoms and other species of algae were also observed. Species of fish observed in this lake include white and black crappies, brown crappies, brown bullhead, yellow perch, blue-gill sunfish, warmouth and largemouth bass. McHugh (1972) classifies this lake as betamesosaprobic (moderately polluted), a class in which 85% of all streams, ponds and lakes samnled in Oregon fall.

Impacts. Both Alternatives 1 and 2 will involve construction of a new bridge over the Skipanon River. The No-Build Alternative, Alternative 3, involves no immediate work in the river. However, the existing bridge on the Skipanon River, built in 1929, has already exceeded its useful life. Total replacement to modern standards would be desirable as soon as funding would allow. The bridge from a safety standpoint has inadequate width and would require widening to 4 feet.

Under Alternative 1, a new bridge would be placed over the Skipanon River approximately 1,000 feet downstream from the Dolphin Road crossing. A channel change, previously discussed, would be associated with the bridge crossing. Several negative impacts on the aquatic environment would accrue from this operation. The channel change would cause extensive disruption and burial of benthic organisms through the channelized section. Decrease of channel length would cause a small local increase in gradient, resulting in upstream erosion and a small increase in velocity through the channel change until river equilibrium is again established. Turbidity and siltation, resulting from construction activities and erosion from side slopes and bridge approaches, would impair feeding and photosynthetic activities of plankton.

Removal of adjacent riparian vegetation (on the east bank, high shrub association; on the west bank, low shrub association) would contribute to streambank erosion and river siltation. Stream temperatures may rise to a certain extent after removal of the vegetation, but this would be minimal, as the existing vegetation is neither very high, nor does it overhang the banks to a great extent. Fish and other mobile organisms would avoid the area when turbidities reach objectionable levels. To avoid the major anadromous fish runs, construction would be limited to certain times. Tidal influence in and below the project area would complicate downstream dispersion of the turbidity plume and oxygen-demanding decaying organic matter released from the stream bottom during channel change and bridge pier excavation. Downstream transport of sediment and other water-borne wastes would be retarded by the tidal influence, which causes slack water and current reversal during its cycle.

Alternative 2, improvement of the existing route, would entail replacement of the existing U.S. 101 bridge crossing the river. The bridge would require excavation of a small portion of stream bottom to allow for piers, causing minor downstream turbidity and siltation and minor release of other pollutants (such as organic matter and hydrogen sulfide) for a short distance downstream. A small portion of the dikes adjacent to the existing bridge, along with the vegetation ground cover, would be altered to accommodate the wider structure.

The Skipanon River tributary crossing Dolphin Road would be placed in a culvert pipe where Alternative 1 intersects with the road. While this tributary does contain various aquatic life forms, including a vigorous zooplankton population, its natural chemical characteristics do not favor a dense or diversified aquatic population. While the culvert would obliterate part of the tributary as productive aquatic habitat and retard passage of organisms upstream, the loss to the Skipanon River system is not considered major.

Similarly, the culvert and adjoining channel change on the Skipanon Slough tributary on both Alternatives 1 and 2 would cause local disruption. Its effect, however, on the Skipanon system would be minimal, since the population of aquatic organisms is limited. Local disruption at both crossing sites would include removal of fairly dense riparian vegetation; downstream turbidity and siltation (although background levels are already high); disruption of the limited numbers of benthic organisms which inhabit the tributaries; and permanent removal of habitat from aquatic production after the culverts are installed.

Alternative 2 does not cross the Skipanon River tributary.

The southern end of Smith Lake may be adversely affected by Alternative

2. South of Ridge Road and west of existing U.S. 101, the area slopes sharply downward toward the lake. Under Alternative 2, the highway right-of-way would be extended closer to the lake. Eroded materials from the highway cuts and fills through this section could wash down into the lake, which could cause turbidity and siltation in moderate quantities although the impact would be minimized with erosion control measures.

Wherever surcharging is used to displace subsurface waters from beneath highway fill, the potential for siltation occurs in those bodies of water near the surcharge area. Alternative 1 would have a greater potential for siltation than Alternative 2.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Aquatic Habitat	1. Bridge crossing and channel change: a. Destruction and burial of benthick organisms. b. Downstream turbidity & siltation during construction & from erosion of fill slopes. c. Impairment of feeding & photosynthetic activities of plankton. d. Removal of riparian vegetation erosion and temperature increases. 2. At Skipanon River tributary & Skipanon Slough tributary crossing: a. Installation of culverts will permanently remove a section of stream from aquatic production (minor loss). b. Minor percentage increase in turbidity levels downstream during culvert installation.	1. Bridge crossing: a. Minor destruction and burial of benthic organisms (if excavation is required for bridge piers). b. Minor percentage increase in turbidity levels downstream during culvert installation. c. Moderate downstream turbidity levels downstream of culvert and channel change. 2. Skipanon Slough tributary crossing (culvert plus channel change): a. Installation of culverts will permanentl; remove a section of stream from aquatic production (minor loss). b. Minor downstream turbidity & siltation during construction. c. Minor erosion of adjacent banks & fill slopes after construction.	a. Existing bridge would require total replacement as soon as possible. Removal of the existing bridge and construction of a new one would minimally affect the aquatic habitat.

Alternative 1	Alternative 2	Alternative 3
c. Moderate downstream turbidity increase downstream of culvert & channel change.	d. Removal of riparian vegetation--minor to moderate erosion & minor temperature increases.	
d. Removal of riparian vegetation would cause erosion and minor temperature increases.	e. Disruption of small population of benthic organisms.	
e. Disruption of small population of benthic organisms at culverts and channel change.	3. Moderate erosion of cut and fill sections into southern end of Smith Lake south of Ridge Road, with resulting turbidity & siltation in the lake. Minimal erosion into Smith Lake north of Ridge Road.	
3. Erosion of surcharge near river & tributaries resulting in minor turbidity & siltation.	4. Minor erosion of surcharge surface into Skipanon Slough crossing and/or Smith Lake.	

Mitigation of Adverse Impacts. The bridge crossings of the Skipanon River (Alternative 1 and 2) and the channel changes would be mitigated in several ways. Construction procedures for working in a live stream are governed by the Oregon State Transportation Commissions's Standard Specifications for Highway Construction (1974). The contractor is required to conform with the applicable sections of ORS Chapter 449, laws thereof, and all regulations of the Department of Environmental Quality, and other Federal or state agencies, as well as ordinances or resolutions enacted or adopted by local authorities. Monitoring of water quality in the Skipanon River will be conducted by the

Oregon Department of Environmental Quality as part of their surveillance of the condition of state water features.

Cofferdams and/or dikes would be used to enclose areas of stream bottom that require excavation. Heavy equipment would be prevented from entering creek channels as much as possible. Bank erosion would be minimized by the encouragement of vegetative regrowth. Construction would be timed to avoid major anadromous fish runs. The channel change will be excavated before water is diverted into it to minimize downstream increases in turbidity and other pollutants. Minimum amounts of riparian vegetation will be removed. Denuded slopes will be limited in size and immediately seeded and mulched to reduce erosion potential.

At the points where culverts are required for adequate drainage, culvert lengths would be minimized and would be of a size to adequately pass flood flows. Berms would be placed around the area to be excavated and backfilled for culvert placement; the streams would be diverted around the construction area. Minimum quantities of riparian vegetation would be removed. The denuded areas would be seeded and mulched to minimize erosion.

Finally, the Oregon State Highway Division has already informed the State Department of Fish and Wildlife of this project. That agency will be consulted for their mitigative recommendations.

Terrestrial and Wildlife Habitat

The Oregon Department of Fish and Wildlife (1974: Advance Data) has classified fifteen major habitat types in Clatsop County. Ten of these habitat types are found within a four-mile radius of the study area.[1] Five habitat types exist within the study area (Table 5).

[1]The "study area" or "project area" is a delineated zone approximately 2,000 feet on either side of the new alignment centerline in Alternative 1.

TABLE 5

HABITAT TYPES IN CLATSOP COUNTY

Types	Present Within Study Area
Estuary and bay	No
Coastal salt marsh	No
Coastal tideland	No
Inland marsh	Yes (major)
Lakes and reservoirs	No
Riparian vegetation	Yes (minor)
Shore pine-spruce	Yes (minor)
Douglas fir-trailing blackberry	No
Non-irrigated agriculture	Yes (moderate)
Urban-industrial	Yes (minor)

The most extensive habitat in the study area is classed as "inland marsh" in state and regional resource publications (Oregon Wildlife Commission, 1974; Oregon Coastal Conservation and Development Commission, 1974). However, this classification includes a wide range of wetlands[2] throughout Oregon, with differing characteristics and wildlife values. These wetlands would more precisely be described as Type 6 (shrub swamp) combined with small amounts of Type 7 (wooded swamp) and Type 8 (bogs), utilizing the classification system found in S. P. Shaw's and C. G. Fredine's Wetlands of the United States, Fish and Wildlife Service Circular 39.

Although wetlands have certain features which are of great value to wildlife, these three types are generally of lower value than other wetlands from the standpoint of waterfowl. Specifically, several features of wetlands in the study area are considered beneficial to a broad spectrum of wildlife species. First, cover is extremely dense in the shrub swamp while cover of a different nature is available in adjoining wooded swamps. Second, movement into or within

[2]Wetlands are defined as lowlands covered with shallow and sometimes temporary or intermittent waters. This includes, but is not limited to swamps, marshes, bogs, sloughs, potholes, wet meadows, river overflows, and tidal overflows, as well as estuarine areas, and shallow lakes and ponds with emergent vegetation. Areas covered with water for such a short time that there is no effect on moist-soil vegetation are not included in the definition, nor are the permanent waters of streams, reservoirs, and deep lakes.

the wetlands is difficult, and access by boat is limited to a small zone along the main channel of the Skipanon River itself. A very high degree of freedom from human harassment throughout most of this habitat type has been the result.

Third, much of the swamp and surrounding brush and woods has the potential to absorb individuals (wildlife) forced from nearby refuge land by population pressure. Fourth, food for certain species is abundant and is probably underutilitized because of other factors. Within pole stands of western hemlock, food in the browsing zone is very limited, while abundant browse exists within spruce/alder and alder woodland stands. The industrial site cleared for construction of the aluminum reduction plant has lain idle. Vegetation which is now in the earliest stages of regrowth will probably prove attractive to deer for the next six to ten years if no further activity occurs. Fifth, and finally, tall snags which are of importance to raptors (birds of prey) occur in spruce/alder and spruce/willow-twinberry stands. The distance from the Columbia estuary, Youngs Bay, and nearby lakes is such that some of these snags may be of value to bald eagles.

The wetlands in the study area were subject to drainage and flood control measures in 1962. Cross channels were dug; levees were built; and tide gates installed on the lower Skipanon River. At the present time there is little open water, and the zones of cattail, rush, and reed which would normally occur around such pools have been replaced by low shrub swamp dominiated by Douglas spirea. Slightly drier sites are occupied by high shrub swamp of willow and twinberry. The continued trend toward drier conditions should result in invasion by red alder, Sitka spruce, and western hemlock until woodland stands are developed.

Along Dolphin Road, which penetrates the eastern edge of the swamp, fill slopes are covered with zones of scouring rush, lady fern and common reed. Along cut slopes where drainage is better, foxglove, thimbleberry, salmonberry, orchard

grass, red top, and Himalaya berry occur. These species are indicative of conditions which could be expected to invade if a roadway (Alternative 1) is built across a new alignment.

Impacts. Several factors restrict the present and future value of the wetlands and related habitat for the existing wildlife. Although standing water is common, the size of open water areas on continuous channel is limited. Only the Skipanon River, a few tributary channels, and an occasional overgrown drainage ditch provide open water areas suitable for waterfowl or furbearers.

Extreme density of the cover formed by Douglas spirea in low shrub swamp and willow-twinberry in high shrub swamp is excessive for a number of species, especially for ground-nesting waterfowl and marsh birds. The most suitable cover for such birds is found in the rather limited shallow water areas dominated by rushes. The transition zone between aquatic and terrestrial environments in the study area is generally abrupt. Areas which are suited to producing either rooted aquatic or emergent reeds, rushes, cattails, or similar plants of benefit to waterfowl are restricted.

Alternative 1, the new alignment, would traverse a relatively isolated, undeveloped and productive terrestrial habitat area. Much of the right-of-way area is in forest and wetlands. Clearing and grubbing of the construction area would result in immediate and major disruption of the habitat in the right-of-way corridor. Alternative 1 would destroy about four acres of existing wetlands. This disturbance to the natural environment, including drainage system changes, would reduce the opportunities for indigenous plants and animals. Because many animal species require a minimum range area and freedom from disturbance, removal of land might be as effective as modification of all habitat in destroying the area for established animal communities. The crossing of the marsh would bring the sight, sound and smell of human activity closer to animals that live in this habitat. (Refer to Table 6 in the "Wildlife" section of this statement for esti-

mated habitat losses for specific wildlife species.) Land-use development in the area would further preclude or reduce the use of the marshland by species requiring freedom from harassment.

Alternative 2, improvement of the existing alignment, would be less severe since less natural habitat, including wetlands, would be affected. For the most part, wildlife patterns in the habitat near the existing highway have already changed because of the disturbing effects of the existing highway. Nonetheless, further alteration to the corridor would decrease suitability and productivity of the habitat. It is close to or within development or modified land. Future development along this route would further decrease the already limited suitable habitat.

The No-Build Alternative, Alternative 3, would be the least detrimental of the three alternatives to habitat.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Terrestrial and Wildlife Habitat	a. Valuable natural habitats would be reduced. b. Clearing, grubbing, filling, and drainage would destroy about 4 acres of wetlands habitat. c. Human intervention in the area would reduce the suitability of the area for wildlife requiring freedom from harassment.	a. Habitat destruction would be less severe.	a. Minor impact

	Alternative 1	Alternative 2	Alternative 3
d. Future developments of the area, facilitated by the new highway, would further reduce natural habitat.			

Mitigation of Adverse Impacts. Refer to mitigation measures discussed in "Wildlife" section (Page 51) of this statement, since habitat changes effectively and directly affect wildlife patterns.

Vegetation Communities

Because of the coastal influence and the local drainage conditions in which the soil may be waterlogged during much of the year, the existing vegetation communities can be considered temporary stages in the development of continuous Sitka spruce or western hemlock stands (Sitka Spruce Forest Zone; Franklin and Dyrness, 1973). Slight increases in elevation result in significant changes in community structure and physiognomy because of drainage conditions, resulting in a transition from shrub swamp to woodland.

Species occurring in the vegetation communities in the study area are listed in Appendix C. Peat underlies much of the area below the 25-foot contour. In Alternative 1, the termini of the route are on relatively high ground where woodland stands occur. The central portion of the route would cross low ground occupied by wetland communities.

Existing woodland stands are of three types: (a) those dominated by red alder: (b) those dominated by western hemlock: and (c) those in which Sitka spruce is co-dominant with red alder-western hemlock or with willow-berry.

Red alder stands occur on both upland and wetland sites. They are characterized by a dense uniform canopy occasionally overtopped by individual spruce or hemlock. The mean canopy height at various stands ranges from about 70 feet where conifers are dominant, to 25 to 45 feet, where alder dominates. Estimates

indicate tree densities as high as 1,500 trees per acre in the sapling and pole category.

Western hemlock-dominated stands tend to be dense and rather uniform in tree size. The observed mean canopy height of sampled stands is 70 feet. Little light penetrates the coalesced canopies. High shrub, low shrub and herbaceous layers are, therefore, poorly developed. The forest floor cover is characterized by decaying fallen trees, some of which support hemlock seedlings as well as ferns and mosses.

Sitka spruce/red alder stands have much the same character as red alder dominated stands, with minor differences. These Sitka spruce are large, far overtopping the remainder of the stand, forming a very open canopy (approximately 20% to 30% crown cover) 120 to 150 feet in height. On the wettest sites, alder gives way to tall, dense shrub stands (10 to 15 feet high) composed of hooker willow, MacKenzie willow, and twinberry. From the standpoint of wildlife habitat, the most desirable snags and nest trees occur in these stands.

Impacts. Alternative 1 would be the most detrimental to vegetation communities, since the clearing, grubbing, and filling activities associated with this new alignment would destroy the existing vegetation in a corridor approximately two miles long and 200 feet (variable) wide. Alternative 2 would affect the vegetation communities less extensively than Alternative 1, since it would, for the most part, utilize the existing alignment. Alternative 3 would cause no changes. Replacing existing forest and shrubs with well drained grassy slopes would favor a simplistic faunal community at the expense of a complex one.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Vegetation Communities	a. This new alignment would require the destruction of major	a. Total effect on vegetation would be less extensive.	a. No change

Alternative 1	Alternative 2	Alternative 3
amounts of natural vegetation in the corridor path.		

Mitigation of Adverse Impacts. The removal of vegetation would be kept to a minimum and, whenever possible, cleared areas would be reseeded with suitable species of vegetation to restore ground cover.

Wildlife

The northern coastal Columbia estuary region, being highly diverse in habitat types, supports a variegated faunal assemblage of high commercial, recreational, and aesthetic values.

Within the study area a large amount of land is devoted to wildlife or to activities which are conducive to continued wildlife use. A state-controlled wildlife refuge extends from the northern tip of the south spit of the Columbia River mouth southward to Fort Stevens State Park. Since the taking of terrestrial wildlife is prohibited in Fort Stevens State Park, the park also has some, but not all, of the attributes of a refuge.

The climate of the coastal region is mild with respect to temperature, frost and snow cover. The "pinch period" for many species is related to rainfall and drainage rather than to climatic extremes and snow cover.

Appendix C contains a listing of the wildlife species found in Clatsop County. Also in the appendix are estimates of the wildlife population and habitat status for thirty selected species in Clatsop County and determination of the "ecological density" of these waterfowl, furbearers, large mammals and raptorial birds. (The "ecological density" is the density of a species per unit area, 100 acres, of suitable habitat for that species.) The data indicate that the ecological density of twenty-two of these species is significantly higher

than the statewide average for that species. Furthermore, a high percentage of the total Oregon populations of Northern bald eagles (5.2%), peregrine falcons (23.8%), Roosevelt elk (34.6%), cougar (13.2%), Canada geese (5.9%), whistling swans (5.0%), and black bear (6.4%) are located in the region.

There are three threatened or endangered species in the region. The Columbia white-tailed deer and the peregrine falcon have national status (endangered). The State of Oregon considers the northern bald eagle threatened. Neither the peregrine falcon nor the Northern bald eagle nest within the study area, but the land must be considered as part of the habitat and range. Approximately twenty-three percent of the peregrine falcons found in Oregon are found in Clatsop County. They prefer nest sites on isolated cliffs or bluffs and are attracted to waterfowl concentrations as a source of food. The U.S. Fish & Wildlife Service has determined that the Columbia white-tailed deer does not use the study area. The main population is located near Knappa, in northeastern Clatsop County.

Impacts. Table 6 provides estimates of the potential short-term and long term wildlife losses associated with Alternatives 1 and 2.

As indicated in the table the short-term losses from each alternative (compare columns 3 and 7) and the long-term losses (compare columns 5 and 9) indicate that, in general, Alternative 1 would cause the greater losses. However, Alternative 2 would also create losses of wildlife. Generally, small differences in the numbers of wildlife lost are indicated. However, in reality, the habitat along Alternative 2 is of lesser quality now than that along Alternative 1 because of the differences in the degree of disturbance which now exists. In either case, replacing existing forest and shrubs with well-drained grassy slopes will favor a simplistic faunal community at the expense of a complex one.

Alternative 1, because it includes right-of-way sufficient for a four lane facility has the greater potential for mitigative measures to improve wild-

TABLE 6

POTENTIAL SHORT-TERM AND LONG-TERM WILDLIFE LOSSES

(Based on County Average/Area)

SELECTED SPECIES	ALTERNATIVE 1				ALTERNATIVE 2			
	Short Term		Long Term		Short Term		Long Term	
	Habitat Loss (Acres)	No. of Indiv.	Habitat Loss (Acres)	No. of Indiv. (100 years)	Habitat Loss (Acres)	No. of Indiv.	Habitat Loss (Acres)	No. of Indiv. (100 years)
Roosevelt Elk	30	2	12	41	26	2	15	51
Black-Tailed Deer	30	3	12	82	26	2	15	102
White-Tailed Deer	30	1	12	19	0	0	5	8
Black Bear	30	0	12	5	26	0	15	6
Mountain Lion	30	0	12	2	26	0	12	3
Beaver	10	1	3	10	0	0	0	0
Muskrat	1	0	0-1	12	1	0	0	0
River Otter	10	0	3	1	0	0	0	0
Mink	0	0	1	1	0	0	0	0
Coyote	30	0	12	12	26	0	15	15
Bobcat	30	0	12	7	26	0	15	9
Valley Quail	--	0	--	--	--	0	--	0
Mountain Quail	19	1	7	10	12	0	5	7
Ring-Necked Pheasant	--	0	--	0	--	0	--	0
Blue Grouse	26	4	10	11	19	3	11	12
Ruffed Grouse	22	5	8	10	12	2	7	9
Mourning Dove	7	0	4	3	14	0	8	6
Band-Tailed Pigeon	22	2	8	11	22	2	8	11
Bald Eagle	0	0	0	0	0	0	0	0
Osprey	--	--	--	--	--	--	--	--
Peregrine Falcon	3	0	3	1	1	0	0	0
Screech Owl	30	1	12	7	26	1	15	9
Great Horned Owl	30	1	12	6	26	1	15	8
Barn Owl	11	0	7	6	21	0	11	10
Canada Goose	0	0	5	53	0	0	0	0
Hooded Merganser	2	5	2	6	1	2	0	0
Common Merganser	0	0	0	0	0	0	0	0
Whistling Swan	0	0	0	0	0	0	0	0
Wood Duck	2	1	2	1	0	0	0	0
Mallard	2	1	0	0	0	0	0	0

Notes on methodology are contained in Appendix C.

life conditions. Opportunities to improve wildlife conditions along Alternative 2 are limited by existing development and a four-lane facility which will leave little room for wildlife development.

Alternative 3 would minimally affect wildlife.

Existing data indicate that collisions with deer have not been a problem along the existing highway (Alternate 2), although black-tailed deer are common. Roadway visibility and peripheral visibility are presently restricted by alignment and vegetation, but roadside development and low vehicle speed have probably acted to reduce the potential for collisons.

Both axial and peripheral visibility should improve to a small degree if the existing road is expanded to four lanes. At present levels of traffic, the average vehicle use per square foot of road surface will be reduced by more than one-half. This benefit can be expected to be nullified as traffic increases with time.

Alternative 1 obviously would increase the potential for wildlife collisions above existing levels, but at the same time, reduced traffic along the old alignment should decrease the annual kill on the existing roadway. A greater potential for highway collisions would exist for Alternative 1 because it is less urbanized. Visibility on this roadway would allow drivers an unobstructed view of embankment slopes on both sides of the highway.

The relative impacts on endangered or threatened species would be moderate. This project would reduce the total existing habitat for the peregrine falcons. The long-term reduction in the future potential population would be estimated to be one bird for Alternative 1 and none for Alternative 2. There should be no destruction of special habitat requirements as a result of this project along either of the alternatives.

The Northern bald eagle is threatened in Oregon. No reported nests or

roosts occur closer than 1.4 miles from the project, so harassment from road construction or use should not prevent future nesting at this site. (Although the nearest nest site was inactive in 1974, it may become active in the future, since this species is known to use alternate nest sites.)

Several of the Sitka spruce trees which will have to be cleared for Alternative 1 appear suitable for eagle or osprey use as perch trees at the present time. Construction of Alternative 1 would lead to increased human activity and reduce the value of remaining trees for eagle perching.

The Columbia white-tailed deer population along the Lower Columbia River in Oregon is reported to occur between the cities of Knappa and Rainier, Oregon, along the Columbia River bottom lands. To protect these animals, deer hunting has been prohibited throughout the Clatsop Game Unit since 1970 on lands north of the Burlington Northern Railroad tracks (approximately one mile north of the study area), and the Columbia White-tailed Deer National Wildlife Refuge has been established in Oregon and Washington. The land required for Alternative 1 is suitable habitat and may have occasional use by the species. However, the loss of habitat would not be "critical" to the survival and/or well-being of the species. Alternative 2 would have less impact on the habitat of the Columbia white-tailed deer population.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Wildlife	a. This alternative would have a moderate impact on wildlife losses.	a. Wildlife impact would be less than Alternative 1.	a. Little change

Alternative 1	Alternative 2	Alternative 3
b. Short-term losses would be greater than with Alternative 2.		
c. Long-term losses would be about the same as Alternative 2.		
d. Wildlife road kill would increase.		
e. There would be a moderate, although not critical, habitat loss for endangered and threatened species.		

Mitigation of Adverse Impacts. Impacts to wildlife can be minimized by selecting the No-Build Alternative. However, for the build alternatives, Alternatives 1 and 2, adverse impacts could be offset in part by improving conditions for wildlife in the unpaved portion of the right-of-way. Several mitigational measures sucn as special plantings, and creation of shallow water areas have been considered for the area (with particular emphasis on Alternative 1). Specific mitigational measures for the selected alternative will be reviewed and finalized with the Oregon Department of Fish and Wildlife and the U.S. Fish and Wildlife Service.

Cultural Environment

Archaeological and Historical Values

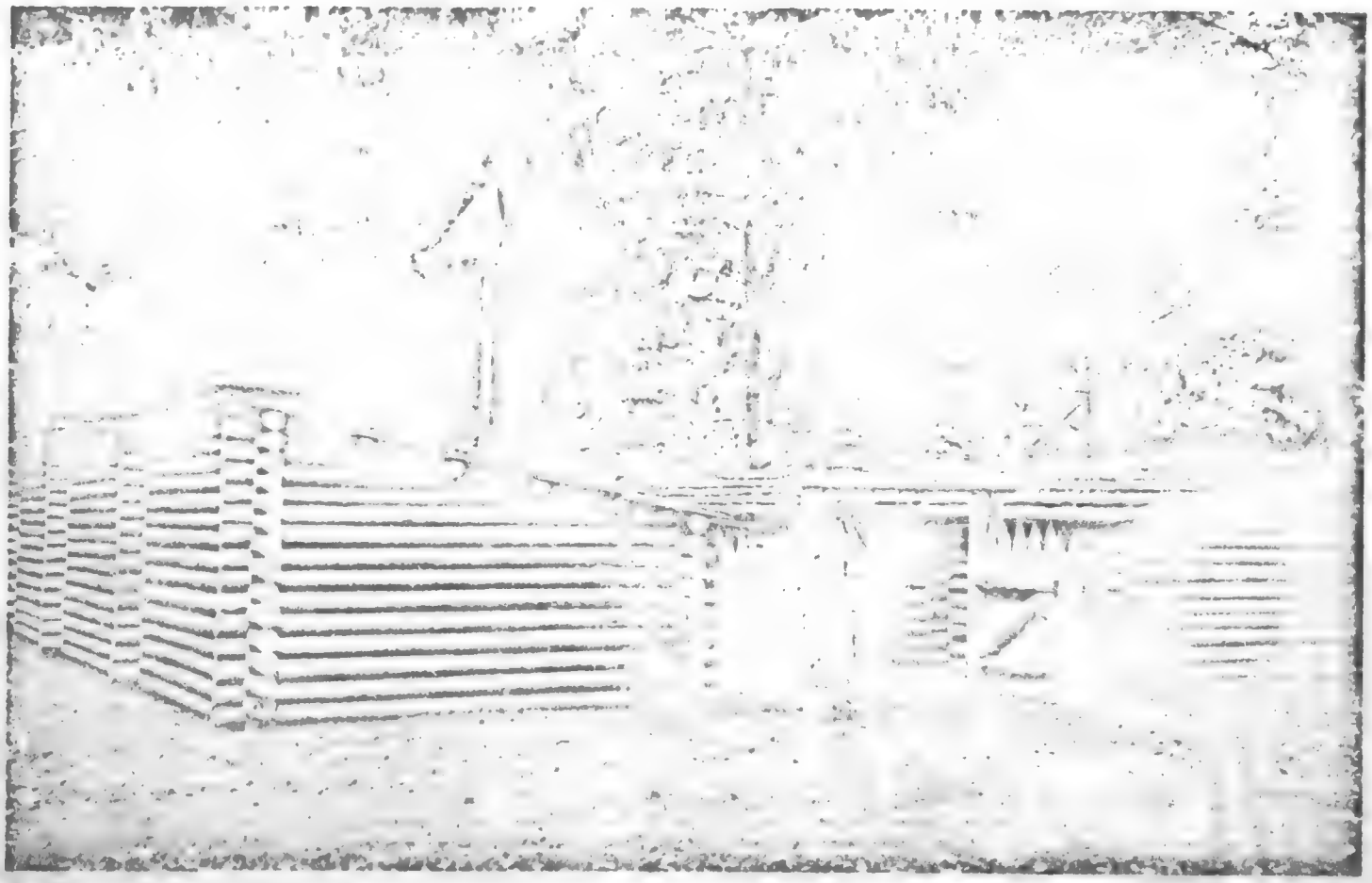
The Clatsop County region is one of the most historically significant areas in Oregon. The beginning of Oregon's history as a territory occurred in the area with the discovery of the Columbia River by Captain Gray in 1792, the arrival of the Lewis and Clark Expedition in 1805, and the settlement of Astoria in 1811. Being strategically located at the mouth of the Columbia River, the area, subsequent, had considerable marine, pioneer, and military activity. A discussion of the historical places in the area is contained in Apprendix D. Figure 9, on the next page, locates these historical sites in the vicinity of the project area.

Impacts

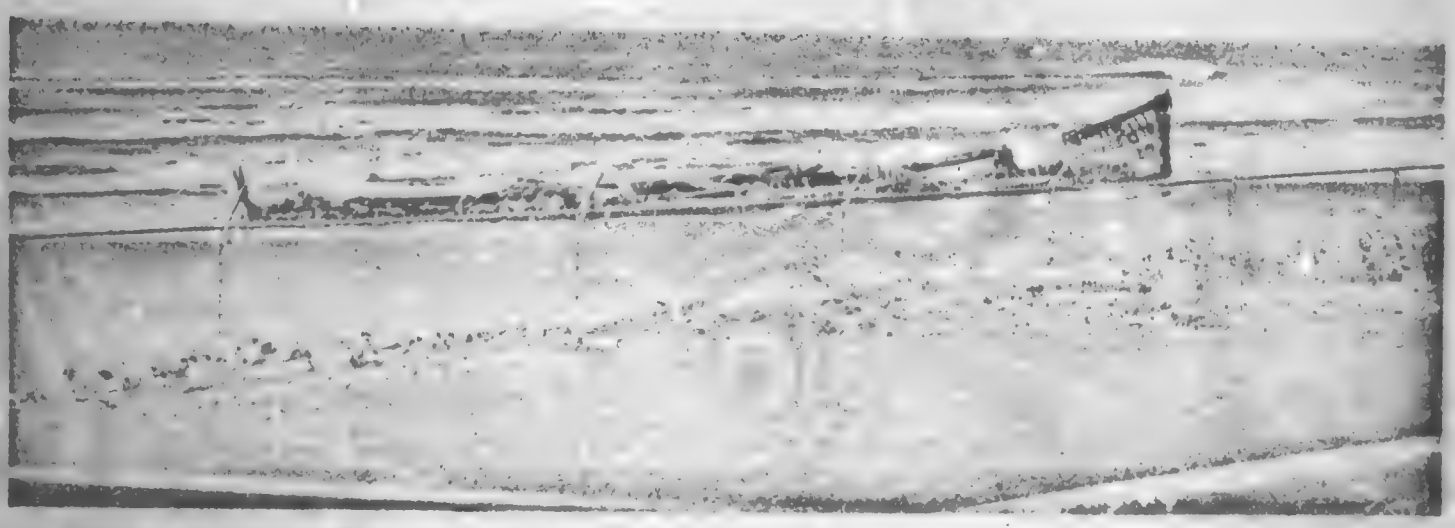
An archeological reconnaissance survey of the proposed South Unit, Astoria-Camp Rilea project was conducted by the Museum of Natural History in July, 1976. No sites were found in the affected area; therefore, the Oregon State Historic Preservation Office approved the project for construction.

Historical resources in the project area were determined by checking the National Register of Historic Places, checking the Statewide Inventory of Historic Sites and Places, and by conducting field surveys and interviews with local citizens. The State Historic Preservation Office was consulted for approval of identified properties and mitigation of adverse effects on historic resources. (See Figure 10, letter from State Historic Preservation Office.)

This project would not affect properties which are listed in or nominated for the National Register of Historic Places. Several other historical places are in or near the project area and two of these places would be affected. Either Alternatives 1 or 2 would require that a new access (driveway) be created to the Clatsop Plains Pioneer Presbyterian Church and Cemetery, located at the south-west end of the project. The existing access connects with U.S. 101; the new



Replica of the fort at Fort Clatsop National Memorial



The wreck of the Peter Iredale on the beach at Fort Stevens State Park

Station X firing tower, part
of the Coastal Defense System

Clatsop Plains Pioneer Presbyterian Church

Cullaby Lake County Park

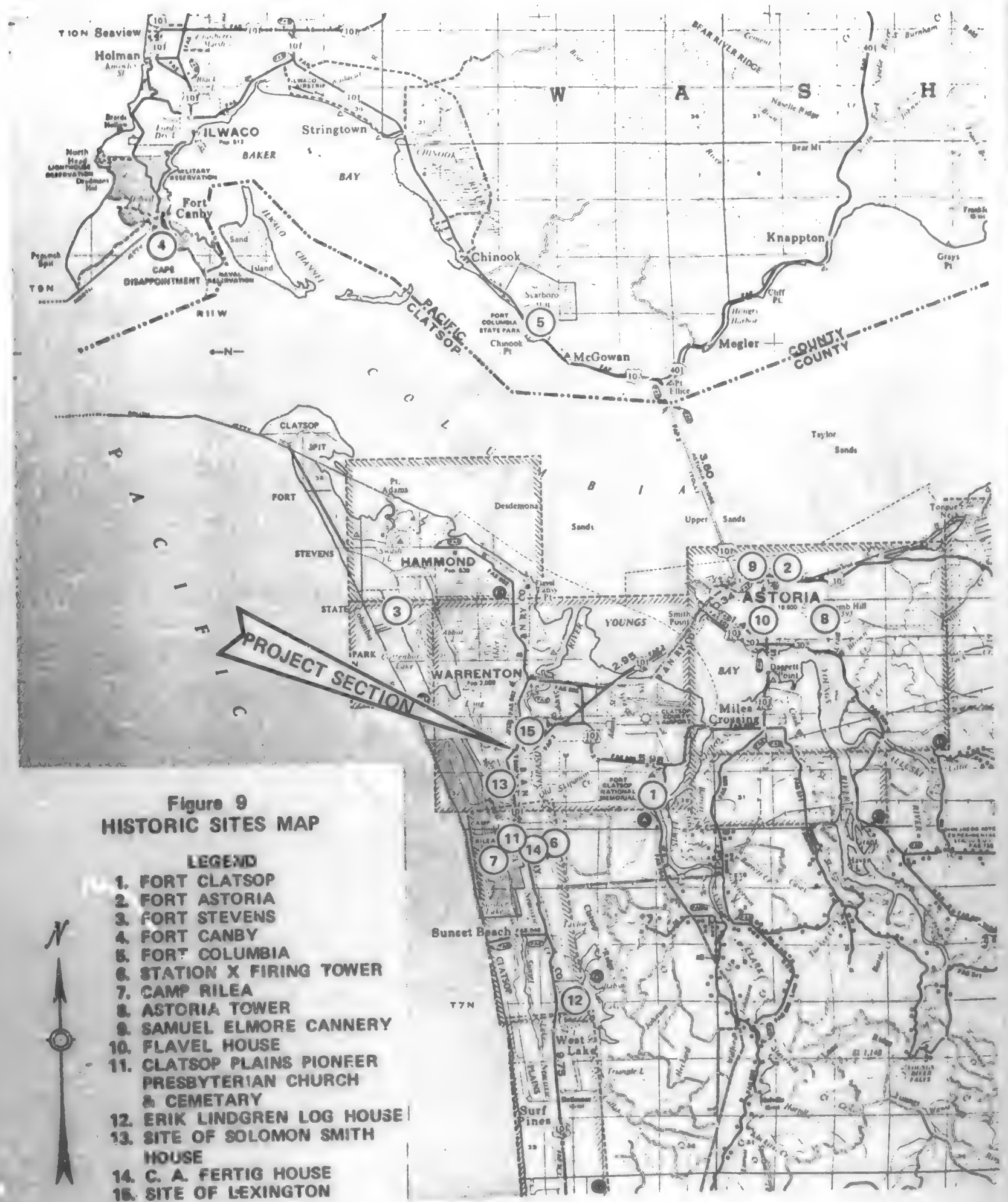


Figure 9
HISTORIC SITES MAP

LEGEND

1. FORT CLATSOP
2. FORT ASTORIA
3. FORT STEVENS
4. FORT CANBY
5. FORT COLUMBIA
6. STATION X FIRING TOWER
7. CAMP RILEA
8. ASTORIA TOWER
9. SAMUEL ELMORE CANNERY
10. FLAVEL HOUSE
11. CLATSOP PLAINS PIONEER PRESBYTERIAN CHURCH & CEMETARY
12. ERIK LINDGREN LOG HOUSE
13. SITE OF SOLOMON SMITH HOUSE
14. C. A. FERTIG HOUSE
15. SITE OF LEXINGTON

Figure 10
LETTER FROM STATE HISTORIC PRESERVATION OFFICE

Department of Transportation
STATE HISTORIC PRESERVATION OFFICE
Parks and Recreation Branch
525 TRADE STREET S.E., SALEM, OREGON 97310

January 19, 1977

Gary Potter, Manager
Environmental Section
412 Highway Building
Salem, OR 97310

Dear Mr. Potter:

Our office has reviewed the proposed Astoria-Camp Rilea project in Clatsop County, Oregon. From the historical survey prepared by your office and the information in our files, we have identified four important historical properties in or near the project area. (1) The fire control tower for Fort Stevens and (2) Erik Lindgren Cabin at Cullaby Lake County Park will not be affected by this project.

Access to (3) The Clatsop Plains Pioneer Presbyterian Church will be changed to connect with Camp Rilea Road. We would concur with this change and agree that the National Register potential of the property would not be affected.

The (4) Tagg Pioneer House also has potential for nomination to the National Register. However, since the house and its setting are not involved in the Astoria-Camp Rilea project, the property will not be adversely affected. We would also concur that the status of the Tagg Century Farm will not be jeopardized by this highway improvement.

The dwelling owned by Mrs. Emily Fertig at Route 1, Box 518, is not regarded by this office as potentially eligible for National Register nor as historically significant.

In summary, this project will not adversely affect any local, state or nationally significant historic property or result in other culturally significant impacts.

Sincerely,

Paul B. Hartwig
Historic Preservation Coordinator

PH:ko

access would be to Camp Rilea Road. No right-of-way would be required from the church and cemetery, a potential nominee to the Federal Register. The access change would not decrease the historical value of the place.

The first settlement in the Warrenton area was Lexington, established in 1848 near the present south city limits of Warrenton. The site of Lexington is in the immediate vicinity of the Alternative 2. The Clatsop County Historical Advisory Committee is planning to designate the site with an historical marker. Coordination between the county and the Highway Division will be necessary in regard to placement and visibility of the marker.

The Fort Stevens fire control tower, atop a ridge about one-half mile east of the existing highway, also has potential for National Register listing. Since it is located outside the project area, the only concern relative to the project is preservation of the view of the tower from the highway. It is highly visible from the roadway and arouses the curiosity of motorists. A turnout on U.S. 101 and a historic marker identifying the structure and its relationship to military history are now under investigation.

The Erik Lindgren Log House, now located in Cullaby Lake County Park, is a rare example of authentic Finnish construction. Because of its unusual architectural and structural detail, this property is being considered for National Register listing. The location is about two miles south of the project, therefore, the subject project would not affect the property.

The Tagg Pioneer House is located approximately 200' south of the southern terminus of the project. This home, circa 1860, and its immediate environs will not be affected by the Astoria-Camp Rilea project. According to the State Historic Preservation Office, the Tagg house has potential eligibility for nomination to the National Register. The farm adjacent to the dwelling was certified in 1958 as a Century Farm in the program sponsored by the State Department of Agriculture and the Oregon Historical Society. The

original Donation Land Claim was filed in 1845, and ownership of the property has been retained by the same family since that time.

Total acreage of the Tagg farm is 104.6 acres, a portion of which is located within the boundaries of the Astoria-Camp Rilea project. The proposed highway improvement will require .53 of an acre of this property in a lateral strip bordering the existing roadway. The removal of this half acre from agricultural use will not affect the continued operation of the farm as an economic unit nor will it affect its Century Farm status.

The setting of the Tagg Pioneer House will not be adversely affected since the project boundary is approximately 200' from the dwelling at the nearest point and separated by a driveway and vegetation. (Refer to Figure 10, letter from Historic Preservation Officer.)

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Archaeological and Historical Values	a. None	a. None	a. None

Mitigation of Adverse Impacts. Section 105.13 of Standard Specifications for Highway Construction (Oregon Transportation Commission, 1974) provides for protection of archaeological finds. If any objects, sites or ruins are encountered, construction is temporarily stopped so that these historic finds can be studied, recorded and, if appropriate, preserved.

Because of the potential for archeological resources in the area, however, it is possible that during the removal of vegetation and soil by construction, sites may be exposed that unavoidably escaped notice during the survey. Section 105.13, Standard Specifications for Highway Construction (Oregon Transportation Commission 1974) stipulates that archeological finds uncovered during construction be adequately recorded or preserved before they are destroyed.

ADVERSE IMPACTS			
	Alternative 1	Alternative 2	Alternative 3
Archaeological and Historical Values	a. None	a. None	a. None

Economy and Employment

The economy of Clatsop County historically has been heavily dependent upon the natural resources of the region. The forest products industry, the commercial fishing and fish processing industries, and the travel industry constitute about half the direct dollar value of the economy and about 35 percent of the employment. Other important basic sectors of the economy include agriculture and food processing, water transportation (including the Port of Astoria), Federal and state government and retirement.

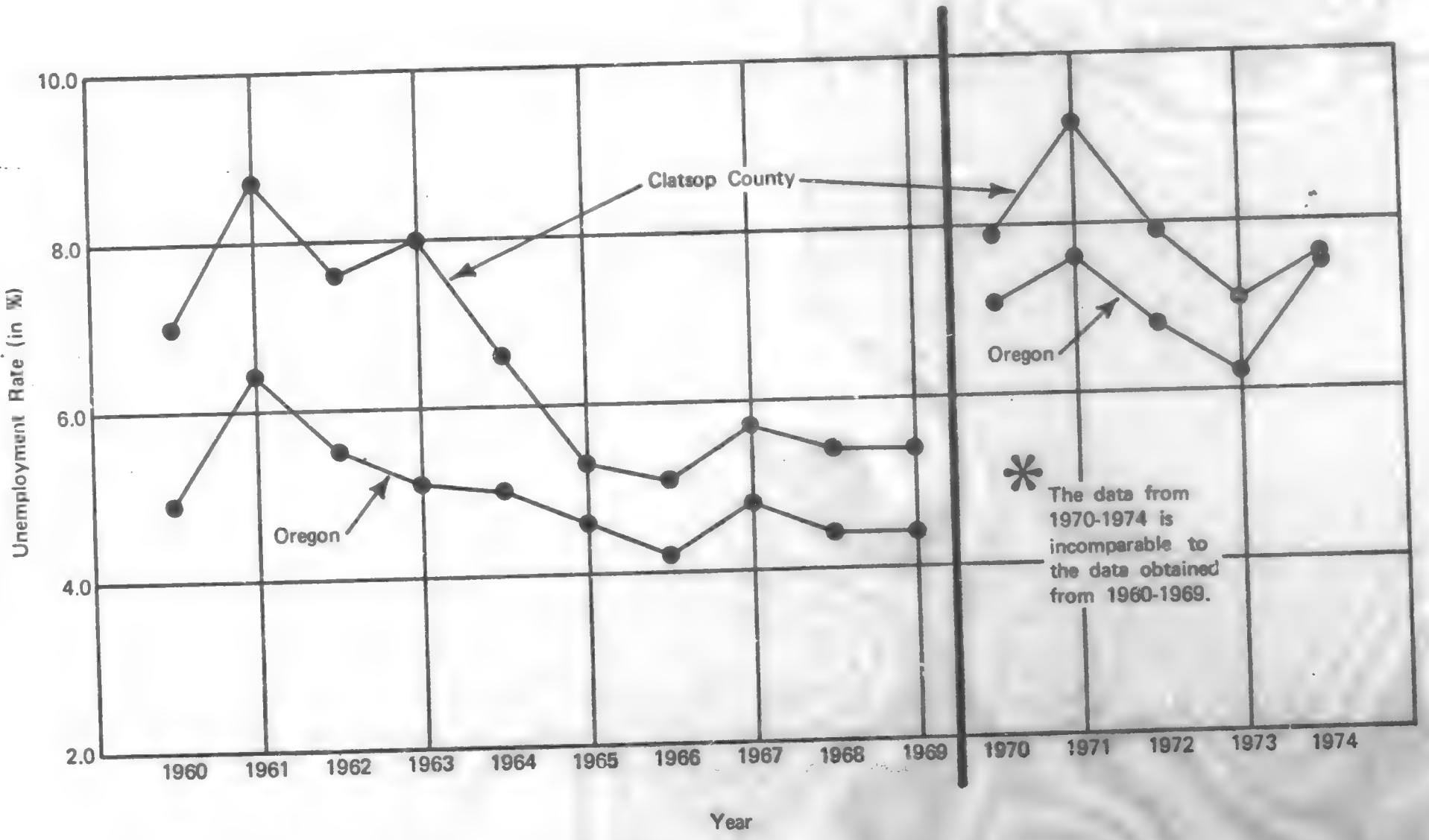
There are two major non-basic[3] industries in Clatsop County: (1) local government and (2) trade and services. Each of the basic and non-basic sectors is discussed in Appendix E.

The Economic Future of Clatsop County. Growth is expected in the forest products industry, the travel industry, water transportation and port activity, and the retirement sector. If political trends continue, growth will occur in Federal and state government and may (or may not) occur in the commercial fishing and fish processing industry. With the growth in the basic sectors, expansion will also occur in local government and in trades and services.

In addition to the growth of these sectors, economic expansion will occur with the development of the two industrial sites east of the project area. One site, consisting of approximately 725 acres, was proposed as the location of an aluminum reduction plant. Had this plant been built, there would be an increase of 777 permanent positions and an increase in about 446 secondary or support positions. If another firm locates on this industrial site, then both primary and secondary employment would increase. There is also a site comprising about fifty acres to the south of the Clatsop County airport which could be made available for industrial location, and which would also increase employment and total (or aggregate) income in the county. It is also possible that a firm might use both sites, since they are only about a mile apart.

[3] Basic sectors are those parts of the economy wherein the level of activity is determined by forces outside of the local economy. For example, the level of output and employment in the travel industry is determined by how many tourists decide to visit Clatsop County. Nearly all these tourists are from places outside the county. Non-basic industries (or sectors) are those which are dependent upon one or more basic industries for their level of output and employment. For example, if a lumber mill is the basic industry in a small region, then the level of activity for retail stores will be directly proportional to the level of activity at the lumber mill. It should be noted that a basic industry in one region may be a non-basic industry in another area. At the county level, state government is a basic sector because it is determined by economic decision-makers generally outside the county; but at the state level it is a non-basic sector since it is largely determined by economic (and political) conditions at the state level.

Figure 11
AVERAGE ANNUAL
UNEMPLOYMENT RATES
1960-1974



Another potential development north of the project area would affect the economy and employment patterns of Clatsop County. Brown and Root Corporation, a manufacturer of offshore drilling platforms, has leased several hundred acres on the east side of the Skipanon Waterway for a possible plant site. This plant would employ 1,200 at peak productions. The decision as to whether or not the facility will be built has not been made.

Unemployment in Clatsop County. The unemployment rate in Clatsop County has historically been higher than the overall state average, as shown in Figure 11. The November 1975 employment statistics show Clatsop County had 1,520 persons unemployed and 11,400 employed, for an unemployed rate of 11.8 percent (total labor force is 12,920). The seasonally adjusted unemployment rate was 10.8 percent. As employment increases in the county, the unemployment rate is expected to remain high, probably higher than the state average. Historically, new jobs have been created, there has been an immigration of new residents to fill many of these positions, with the result that the unemployment rate goes down little, if at all.

Impacts. The Oregon Coast Highway, U.S. 101, is the main north-south route through Clatsop County, connecting most of the major population and employment centers. While all industries discussed depend upon this highway as a transportation route, the Astoria-Camp Rilea section is more important for several industries, particularly for the lumber and wood products industry and the travel industry.

Much of the raw material source for the lumber and wood products industry is located to the south of this section of highway and which is transported over this section. Crown-Zellerbach, the largest private landowner in the county, transports about a third of their timber over this section to their shipping point on the Lewis and Clark River near Astoria. The travel industry is heavily

dependent upon this section because it provides access to Fort Stevens State Park and other points along the coast.

This section also serves as the route for journey-to-work trips between residential locations in the Clatsop Plains area and employment centers, mainly in Astoria.

Alternatives 1 and 2, the build alternatives, would improve a section of U.S. 101, thereby improving the flow of traffic, reducing travel time and, correspondingly, reducing travel costs. As indicated in Table 1 in the "Alternatives" section of this statement, Alternative 1 offers a more direct routing and the shortest section (2.8 miles). Alternative 2 improves the existing alignment.

Table 7 shows the benefit-cost and rate-of-return data on the three alternatives for this project. The benefit-cost/rate-of-return analysis is a comparsion of the benefits to the highway users and of the cost of the project, which are paid for by highway users. All measurements are in dollars. Appendix F has a discussion of the methodology and the assumptions used in this analysis.

The last two lines in Table 7 give the benefit-cost ratio and the rate-of-return for Alternative 1 (the new alignment) and Alternative 2 (the widening of the existing alignment). From a user's point-of-view, both are preferable to Alternative 3 (the no-build). That is, the benefits of the build alternatives, measured in the reduction in user costs, are greater than the costs of either alternative. Alternative 1 gives higher figures than Alternative 2, mainly because of the greater decrease in mileage (which is calculated in the benefits). For Alternative 1, right-of-way costs are also lower, as noted in Table 7, which reduces user costs.

The rate-of-return figure expresses benefits and costs in percentage form and can be compared to the rate-of-return or profit rate on other investments, both public and private. This analysis does not include non-user benefits

TABLE 7

BENEFIT-COST AND RATE-OF-RETURN DATA

South Unit, Astoria-Camp Rilea Section, Oregon Coast Highway (U.S. 101)

Item	Alternative 1 (New Alignment)	Alternative 2 (Existing Alignment Improvement)	Alternative 3 (No-Build)
Project Costs:*			
Time Costs	$ 8,625,681.16	$ 7,142,705.92	$13,007,322.38
Mileage Costs	11,028,339.11	12,290,664.04	12,397,302.55
Maintenance & Operating Costs	342,819.50	334,417.59	227,722.11
Construction Costs	3,100,000.00	5,470,000.00	0.00
TOTAL COSTS	$23,096,839.77	$25,237,787.55	$25,632,347.04
Benefit-Cost Ratio (6 Percent Discount Rate)	1.81	1.07	
Rate-of-Return	12.21%	6.59%	

*Costs estimates, 1975.

and costs; these may be more important than user benefits and costs. Both user and non-user benefits and costs can be categorized into social costs and benefits. Social costs and benefits are discussed in Appendix F.

The most significant economic impacts of the proposal would be the impact of the construction itself, the savings accrued to highway users, and for Alternative 1, the decrease in commercial activity along the old highway. Some of this income from construction would flow into the local area. However, it is generally the case on coastal projects that construction workers reside outside the coastal areas and spend most of their income outside the region where construction takes place. Hence, the secondary impacts of construction on the local economy are not expected to be substantial.

An important aspect of decision-making is the expectation of future events. Decision are often made with the belief that certain events will occur. If these expectations change, then the decisions may well change.

Many who live and work on properties adjacent to the existing route have assumed for ten years or more that the new alignment (Alternative 1) would be chosen. Residents have purchased homes with the thought that the existing highway would become a local arterial once the new alignment was chosen. Some businessmen have anticipated a decline in sales once the new alignment was opened. If the new alignment is not chosen, then these individuals will change their plans. Residents may move and businesses may alter plans for their firms.

Alternative 1 would bypass nine businesses. These include a ship building and repairing facility, a restaurant, a handicraft shop, two warehouses, a mobile homes retailer, a service station, a tavern, and a cafe and truck stop. Interviews with personnel of each of the nine firms were made by a representative of the Oregon State Highway Division in July, 1975 Of the firms interviewed, the proprietors of the restaurant, service station, and

cafe and truck stop believed that they would be adversely affected by the withdrawal of traffic onto the new alignment. However, they expected the new alignment to be chosen, and two of the three firms had made some plans to adjust to the decreased traffic. Representatives of the other six firms believed that they would be either favorably affected or that they would incur no substantial impact with the alignment.

It is probably correct that the representatives of the three businesses which were opposed to the existing alignment would experience a decline in sales, since they are in highway-oriented businesses. The other businesses are less highway-oriented, having little or no dependence on passing traffic. Bypass impacts on these firms would be minor.

Apparently, the aluminum reduction plant originally planned for the industrial site east of the project area will not be built. However, another industrial firm may decide to purchase the property on this site. Likewise, at the time of writing, no firm decision has been made on the off-shore oil drilling platform manufacturing facility north of the project area.

Plant location depends upon a variety of factors, one of which is availability of transportation. Alternative 1, the alignment, would facilitate access to the industrial site east of the project area would be improved and may be a factor in the location of a firm at this site. A firm may be less likely to locate at this site if either the widening of the existing alignment or the no-build would have been chosen. It should be emphasized that there are many other factors far more important in the decision-making for the location of a firm at this site than the realignment of the highway. Some of these more important factors include availability of raw materials, a market, public utilities, and the ability to meet environmental restrictions.

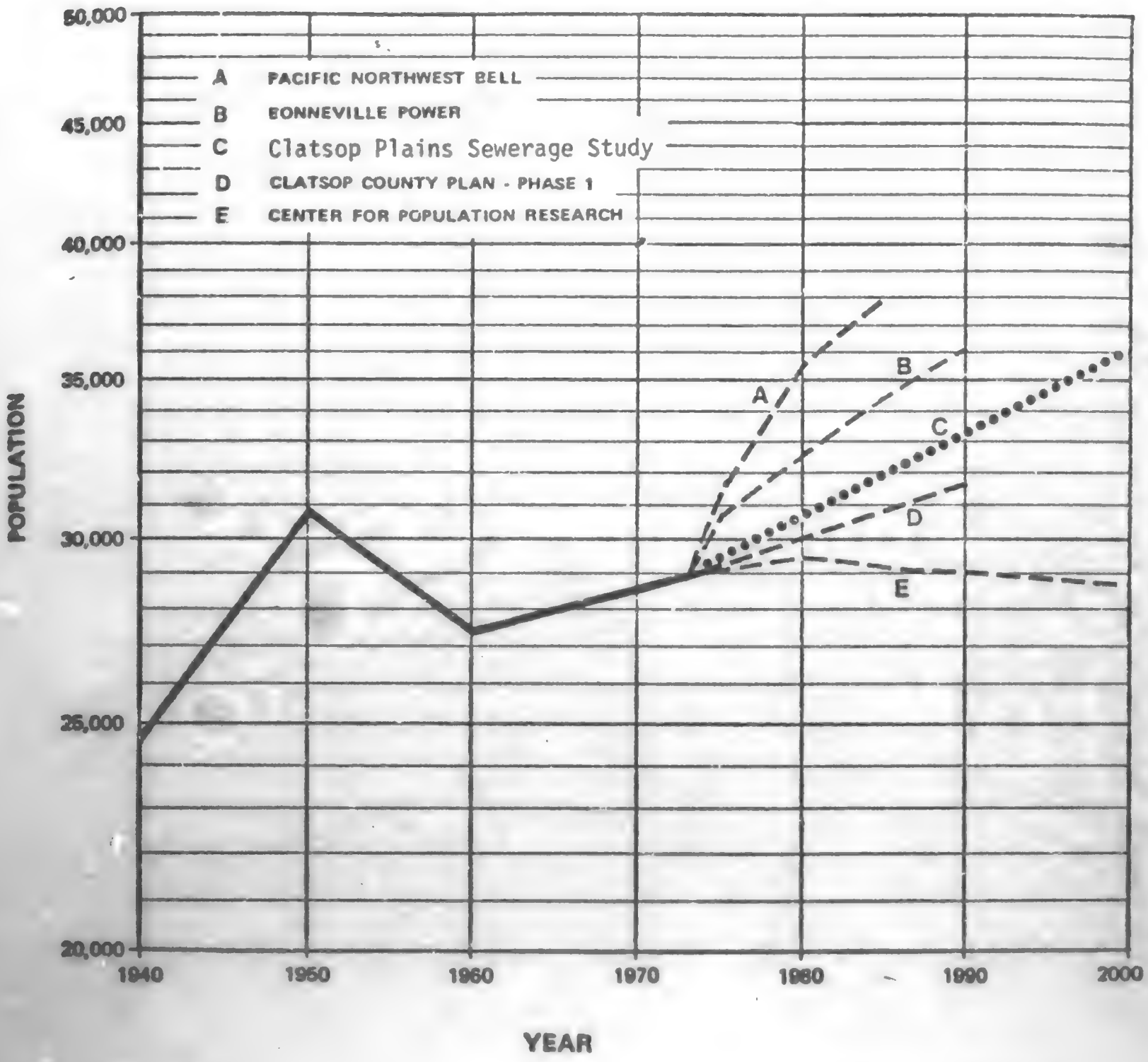
ADVERSE IMPACTS			
	Alternative 1	Alternative 2	Alternative 3
Economy and Employment	a. Several businesses on the existing route would be bypassed with losses in sales.	a. Low rate of return on this highway investment. b. High short-term transportation costs because of construction.	a. High traffic costs, especially during the summer months and on weekends.

Mitigation of Adverse Impacts. None identified.

Population and Property Values

The U.S. Bureau of the Census, Department of Commerce, divides counties into Census County Divisions (C.C.D.). This project lies within the Clatsop Plains C.C.D., which in turn is divided into the cities of Warrenton, Hammond, Gearhart, and the area called North Beach. Table 8 gives the recent population increase of these areas. All have grown more rapidly than the county, although it should be noted that the smaller base numbers will tend to bias the percentages upward for the smaller areas. The growth of population in this area has been curtailed with the ban on construction in non-sewered areas, imposed by the State Department of Environmental Quality in 1970. There are two sewered areas in the C.C.D.: in the city of Warrenton and at Cullaby Lake, which is located on the east side of the North Beach area. These two districts service between one-third and one-half the population in the C.C.D.

Figure 12
PROJECTED POPULATION GROWTH
CLATSOP COUNTY



Source: Sedway/Cooke. 1974. Community Impact Analysis: AMAX Pacific Aluminum Reduction Plant, Warrenton, Oregon. San Francisco, California.

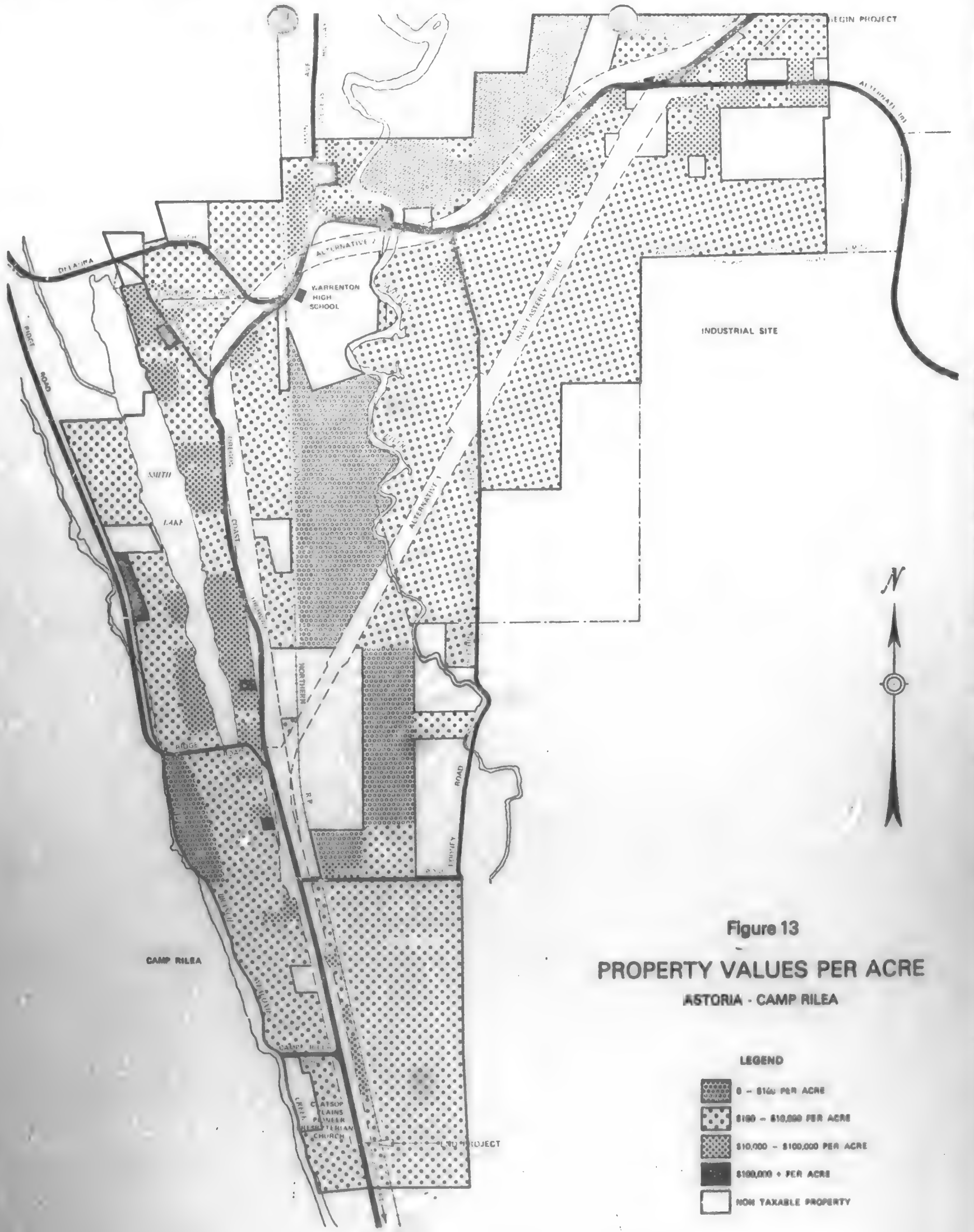


Figure 13

PROPERTY VALUES PER ACRE

ASTORIA - CAMP RILEA

LEGEND

- $0 – $100 PER ACRE
- $100 – $10,000 PER ACRE
- $10,000 – $100,000 PER ACRE
- $100,000 + PER ACRE
- NON TAXABLE PROPERTY

TABLE 8

POPULATION CHANGE

CLATSOP COUNTY AND SELECTED AREAS

	1960 Population	1970 Population	Percentage Change
Clatsop County	27,380	28,473	4.0%
Clatsop Plains C.C.D.	3,973	4,340	9.2%
Warrenton	1,717	1,825	6.3%
Hammond	480	500	4.2%
Gearhart	725	829	14.3%
North Beach	1,051	1,186	12.8%

The State Center for Population Research and Census recently estimated population (1975) for Oregon counties and cities. At this time, five years beyond the U.S. Census data, Clatsop County had 29,350 residents. Astoria contained 10,680; Warrenton, 2,005; Hammond, 530 and Gearhart, 890. Based on the 1970 census data, the population density of Clatsop County is 35.4 people per square mile. The average income per family in the county during 1972 was $9,429, very close to the state average of $9,487.

The census data also shows that the population of Warrenton is considerably older than the county or the statewide average. This is evidenced by Table 9. In Warrenton, nearly a quarter of the population is over 65, while only about one in ten is in this category within the State of Oregon.

TABLE 9

MEDIAN AGE AND AGE 65 AND OVER

	Oregon	Clatsop County	Warrenton
Median Age	29.0	33.5	44.3
Age 65 & Over	10.8%	14.3%	23.3%

Figure 12 shows the recent and projected increases in population; all but one projection shows an increase. It should be noted that there may be a

population decline by the year 2000 if the anticipated economic expansion does not occur. (Economic activity changes are directly related to population change.)

The extent of increase in economic activity (whether measured in output, income or employment) in the central portion of the Clatsop Plains C.C.D. depends upon two major factors: (1) the location of an industrial facility on the site, east of the project and (2) the construction of a sewer system outside the city of Warrenton.

Within the area adjacent to the two alternative alignments, there is a substantial range in property values, as shown in Figure 13. As expected, the higher-priced properties tend to be next to the existing alignment, where the land is used more intensively. Much of the land near the new alignment has a low assessed (and market) value because of its limited usability. Much of it is swampy and in a flood plain.

Along the existing alignment, there are 97 single-family residences, 40 multi-family residences and 10 commercial sites. As shown in the property value map, most of the properties are within the $10,000 to $100,000 per acre range of assessed values. It is interesting to note that all of the residences (both single-family and multi-family) are year-round residences. None is a vacation residence, although some may have been so previously. Several factors may explain this: (1) the decrease in preferences for vacation homes and the increased desire for camping facilities; (2) the use of residences along the highway by suburban residents who commute to work in Astoria, Warrenton, Seaside or other locations; (3) the use of these facilities by the growing retirement sector; and (4) the lack of ocean views from plots along the highway.

Impacts. None of the alternatives would directly affect population increases or decreases in the area. However, the project would affect the pattern of where the population lives. (This is discussed under "Land Use", later on).

Many variable factors affect property values. Convenient access to highways and opportunities for mobility are two of these factors. If either build alternative is chosen, the increase in economic activity associated with the project would tend to increase property values. The implementation of Alternative 1 would enable the existing highway to be utilized principally for local traffic, with some recreational through traffic travelling to Fort Stevens State Park and other beach accesses. Without the existing congestion, noise and traffic volumes, the value of residential land would increase, since the area would be more "liveable". Some residents with homes along Smith Lake have stated that they purchased their property with the anticipation that the Oregon Coast Highway would be rerouted away from the present location.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Population and Property Values	a. None identified.	a. None identified.	a. No change

Mitigation of Adverse Impacts. None required.

Right-of-Way, Relocation and Tax Base Reduction

The total amount of right-of-way required for Alternative 1 is about 70 acres (see Table 10). The Oregon State Highway Division, anticipating the construction of the highway in this route, acquired approximately 54 acres of the right-of-way in the mid-1960s. An additional sixteen acres would be required. About ten acres of this is in the southern portion, which is also part of the right-of-way for Alternative 2. Most of the right-of-way already in state ownership is undeveloped rural land in the center of the project. Thirteen residences were acquired in the 1960s, and the residents were relocated in anticipation of the project.

In addition to those residences already relocated, Alternative 1 would displace one commercial site and five single-family residences and would require the relocation of these families and the one business. (The Williamson Body and Paint Shop building, at the northerly terminus, is the business that would be acquired. Four of the five residences are located near the southerly end of the project. In total, approximately fifteen individuals would be relocated.) Although the supply of suitable housing and commercial sites is limited in the Warrenton area, relocation for five families and one business would not be difficult since sufficient replacement housing is available.

The total cost for the right-of-way associated with Alternative 1 would be $825,000 (1976 estimate). Land acquisition would be $324,000; improvements, $426,000; and relocation, $75,000.

The widening of the existing alignment (Alternative 2) would necessitate more displacement and higher right-of-way costs than Alternative 1, since it follows the existing highway which is lined with businesses and residences. The total right-of-way required for Alternative 2 would be about 80 acres, of which 15 acres are already within state ownership. This alignment would affect three commercial sites, forty-five single-family residences and twenty-nine multi-family residences (Table 10). Relocation assistance would be required for those businesses and residents. Finding suitable substitute housing and commercial sites for this number of relocatees would pose a problem in the Warrenton-Astoria area. The total estimated cost of the right-of-way for this alternative would be $1,590,000 (1976 estimate). Land acquisition is estimated to be $345,000; improvements, $955,000; and relocation, $290,000.

TABLE 10

RIGHT-OF-WAY AND TAX BASE REDUCTION DATA

	Alternative 1 New Alignment	Alternative 2 Existing Alignment Widening
Improvements affected:		
Commercial Sites	1	3
Residential Sites		
Single-Family	18 (13 previously acquired)	45
Multi-Family	0	29
Right-of-Way Costs (1976 estimates)	$825,000	$1,590,000
Acreage Required	70 acres	80 acres
Acreage Purchased	54 acres	15 acres
Tax Loss (Annual)	$ 2,300*	$ 11,300*

*This does not include tax losses for properties already purchased by the State of Oregon.

Table 11 shows the various taxing districts affected by the build alternatives and the percentage losses in revenue in 1974 dollars. It should be emphasized that these numbers are only for the right-of-way which has not been purchased. There are no assessed values available for the property already purchased; hence, no tax losses can be calculated.

The tax base reductions for each district are relatively small, and it is unlikely that there will be any changes in property tax rates with either build alternative.

Alternative 2 has consistently higher percentage losses because of the higher value of property which would be acquired. If Alternative 2 is chosen, these loses would be partially offset by the return to a taxable status of the the land which has been purchased for Alternative 1. If the no-build is chosen, there would be 54 acres of land returned to a taxable status.

TABLE 11

PERCENTAGE TAX BASE REDUCTIONS

Taxing District	Percentage Loss	
	Alternative 1	Alternative 2
County	0.02%	0.10%
City of Warrenton	0.16%	1.24%
Intermediate Education District	0.03%	0.13%
School District #30	0.30%	1.45%
Port of Astoria	0.02%	0.10%
Clatsop College	0,02%	0.10%
Road District #1	0.02%	0.08%
Warrenton Fire District	1.06%	3.54%

It is expected that both build alternatives would increase economic activity, property values, and tax revenues.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Right-of-Way, Relocation and Tax Base Reduction	a. Approximately 70 acres irreversibly committed to highway use.	a. Approximately 80 acres irreversibly committed to high- use.	
	b. One commercial & eighteen residential properties affected. (13 residences have already been acquired.)	b. Three commercial sites, 45 single-family and 29 multi-family residential sites affected.	
	c. Relocation would involve one commercial business and five families.	c. Number of relocations would create a problem in finding replacement housing, since suitable substitute housing & commercial sites are limited in the Warrenton-Astoria area.	
	d. Additional annual tax loss would be $2,300.	d. Additional annual tax loss would be $11,300.	

Mitigation of Adverse Impacts. Minimization of right-of-way impacts would include purchasing all properties at a fair market value and providing relocation assistance. Information on the Oregon State Highway Division's relocation assistance program and a preliminary study of available housing in the area is included in Appendix G. An updated study of available housing will be included in the final environmental statement.

Land Use

The land use patterns in Clatsop County and the Warrenton area are strongly influenced by several factors. Topography, soil conditions, and natural features such as the beach dunes, minor waterways, aquifers and marshes exert one kind of influence. The Pacific Ocean and the Columbia River with its estuary have another kind of influence. Finally, the history of the region also plays a role in determining land use patterns.

Most of Clatsop County's 526,000 acres is mountainous, forested, and devoted to the production of timber. Approximately thirty-two percent of the total acreage of the county is in public ownership. Most of the forest lands are in private ownership and managed for sustained yield forest resource production. Agricultural and grazing land is located in the lowlands along major rivers in Clatsop County. The majority of the county's population is concentrated in a narrow strip along the Pacific Ocean and the Columbia River.

Historically, the land development within the city of Warrenton has been hindered by severe natural constraints and has been in a linear north-south corridor bounded on the east by the Skipanon River and on the west by Fort Stevens State Park. Warrenton was one of the early areas on the northwest coast to be settled. The early settlers were attracted by the excellent location. As a result of this early enthusiasm, an extensive area of land was platted into small parcels with dedicated streets. (The area within the city limits, in-

cluding Fort Stevens State Park, is approximately sixteen square miles.) The expected growth and subsequent development never materialized in Warrenton. Consequently, a majority of the platted areas have never been developed. This condition has a negative effect on future community development since resubdivision of portions of the city would be required.

Existing Land Use and Development. The existing uses of land, categorized by functional class, in the project area are shown in Figure 14. As noted, the northerly half of the project area is within the city boundaries of Warrenton. The southerly half is in an unincorporated area of Clatsop County.

The most predominate use of land along existing U.S. 101 is for residential purposes. A few commercial uses are at the northerly end, with most of these near the intersection with the Fort Stevens Highway (Main Avenue). The Warrenton High School is east of the highway near the intersection. At the southerly end of the project area on the west side are Camp Rilea and a church and cemetery. The east side of the highway is only lightly developed, with scattered residential use. The area along the new alignment alternative (Alternative 1) is relatively uninhabited and is designated Forest-Timber-Grazing. There is little development in this area except for a few residences along Dolphin Road and Perkins Road. Immediately east of the new alignment route is a large industrial site, cleared of vegetation but undeveloped.

Zoning and Land Use Planning. Both political units (Clatsop County and the city of Warrenton) in the project area have adopted land use plans and zoning ordinances. As indicated in Figure 15, the current zoning classifications in the project area closely follow the pattern of existing land use in the area. The only major exception is the Heavy-Industrial (M-2) category in the small area west of the Skipanon River at the northerly end. The zoning pattern shows the random nature of commercial and residential development and

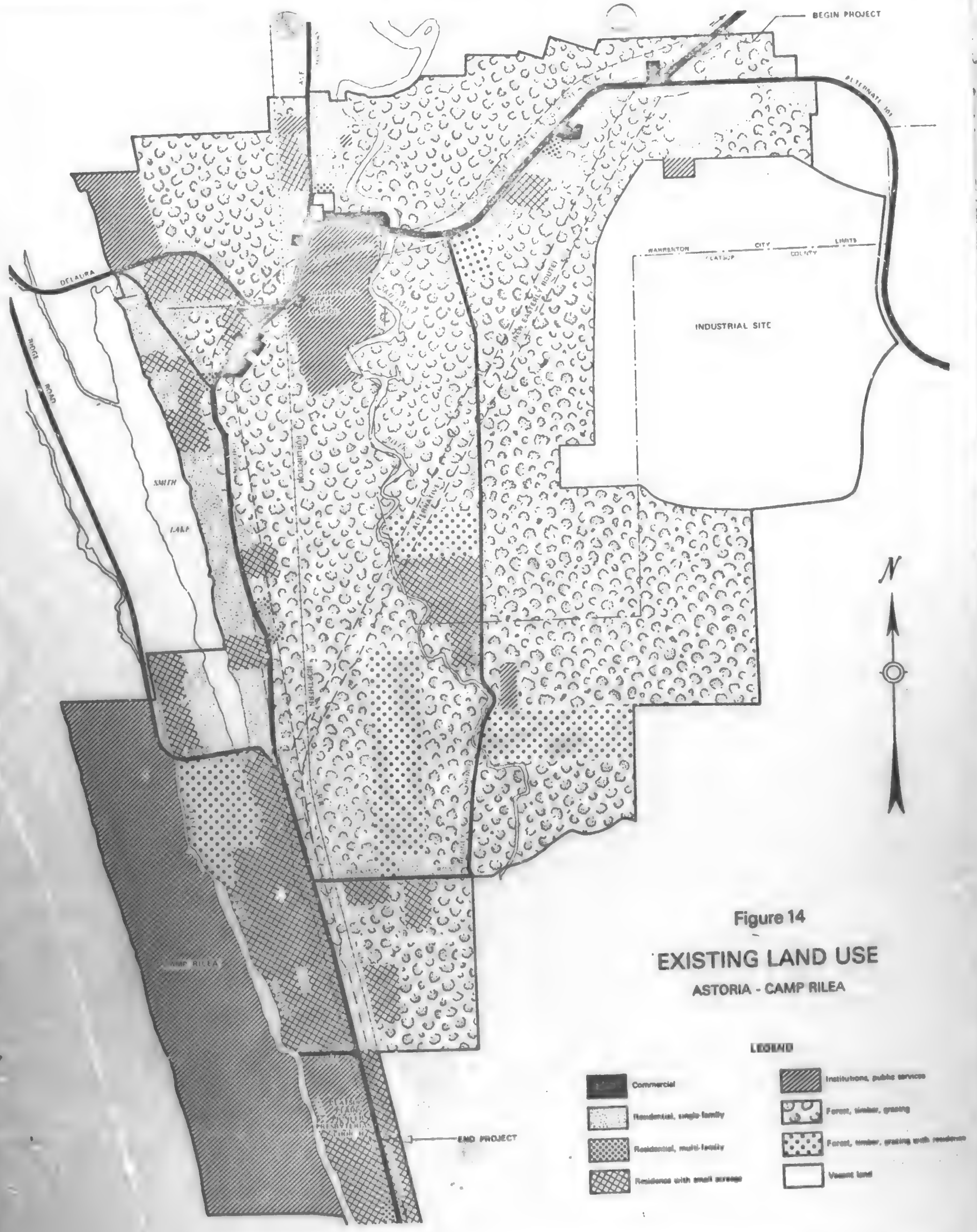


Figure 14

EXISTING LAND USE

ASTORIA - CAMP RILEA

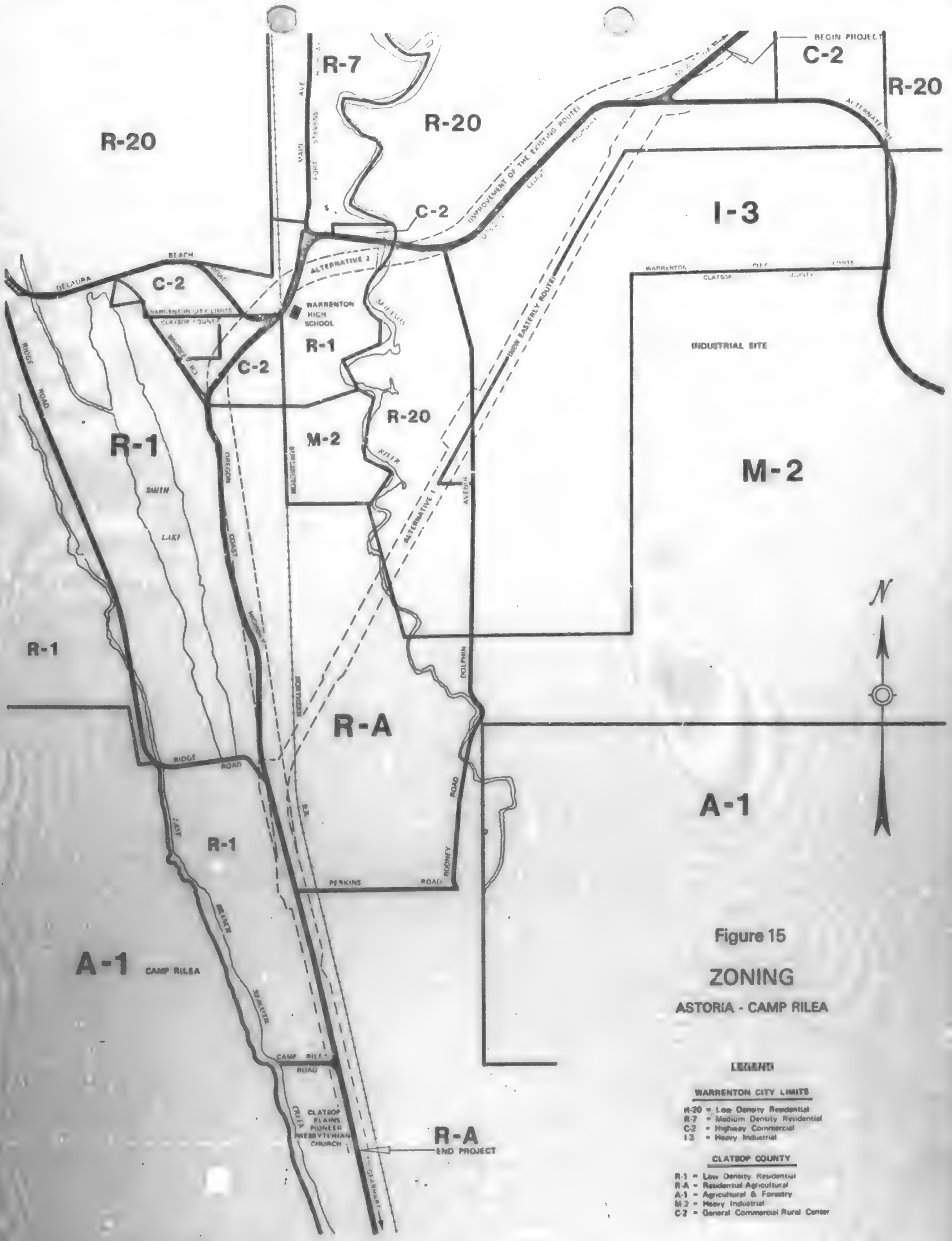


Figure 15

ZONING

ASTORIA - CAMP RILEA

LEGEND

WARRENTON CITY LIMITS

- R-20 = Low Density Residential
- R-7 = Medium Density Residential
- C-2 = Highway Commercial
- I-3 = Heavy Industrial

CLATSOP COUNTY

- R-1 = Low Density Residential
- R-A = Residential Agricultural
- A-1 = Agricultural & Forestry
- M-2 = Heavy Industrial
- C-2 = General Commercial Rural Center

reflects the fact that the pattern of development was well established before zoning ordinances were implemented.

Warrenton's land use plan is contained in Volume II, Community Plan, Warrenton Comprehensive Plan, adopted August 19, 1974. A new zoning ordinance, adopted on April 21, 1975, complements the comprehensive plan. As stated (p. 8),

> The Plan is predicated upon the establishment of coherent development patterns throught the city, consistent with the ability of the community to provide the necessary services to support such development at reasonable cost. The city of Warrenton is unique because the greatest portion of the land within the incorporated limits is still undeveloped. Consequently, the city will have direct control over a great deal of the future development which will take place in the northwestern corner of the state.

One intent of the comprehensive plan is to encourage the development of new land uses in undeveloped areas for the benefit of the whole community. The other is to protect existing land uses from encroachment of incompatible uses.

It can be reasonably expected that pressures will increase to develop new residential, commercial and industrial uses in the area. In the past, many severe natural constraints have hindered development within the city limits. However, a good portion of new development can be expected to occur within Warrenton. Proper engineering of foundations, extension of water and sewer service, and improvement of circulation will make the land that was heretofore unsuitable for development suitable.

Warrenton's comprehensive plan identifies priority, short-range and intermediate-range development areas (Figure 16). The short-range plan designates for new scheduled development the area that is presently served by the existing sewer system. The intermediate concept is designed to encourage and accommodate potential growth areas of the city that have not been exclusively developed. As identified in Figure 16, a priority area and one of the intermediate range development areas are immediately north of the project area.

Warrenton is proposing a sewer system which would border the existing U.S. 101 from the airport area west to the intersection with Main Street. This system would aid in development in this area.

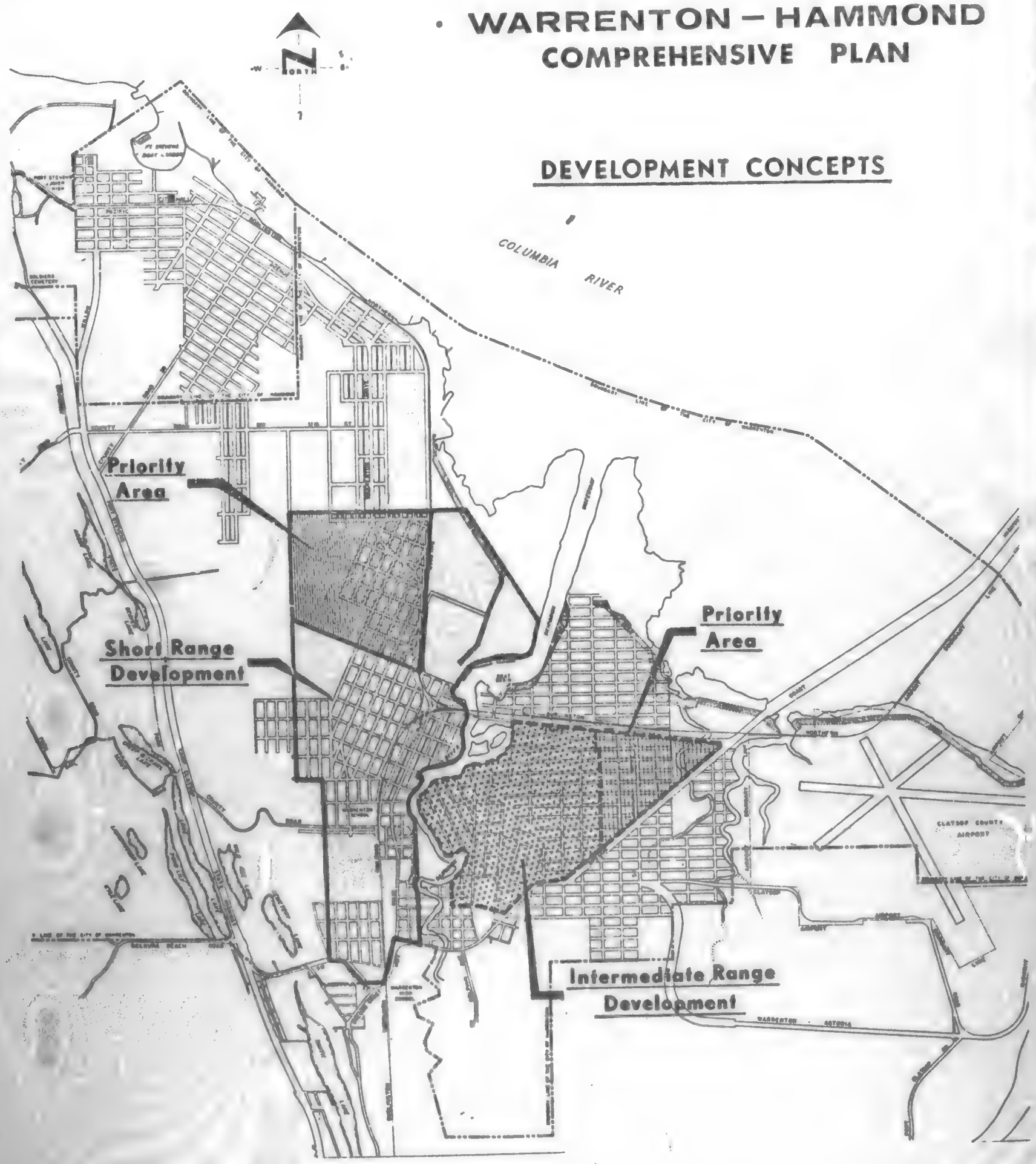
Impacts. Alternative 1, the new alignment, is recognized by the adopted land use plans for Warrenton and Clatsop County and is, therefore, consistent with it. Alternatives 2 and 3 are not recognized in the plans.

Alternative 1, the new alignment, would have primarily beneficial impacts on the land use in the area. Although the primary impacts associated with right-of-way acquisition and relocation would be moderate to severe, the secondary impacts on future land development would be more significant than the primary impacts. However, such development would be controlled by zoning and comprehensive land use planning.

As indicated in Figures 14 and 15, the area immediately east of the new alignment is zoned for industrial use. If and when a major industrial plant is located on the site, the new route would facilitate heavy traffic to and from the area (assuming an access road to the industrial site were created from Dolphin Road). The new route would decrease travel time and costs. The city of Warrenton has designated for industrial uses an area near the Clatsop County Airport. This area is appropriate for the development of an industrial air park in conjunction with the existing aircraft facilities. Alternative 1 would improve the circulation in the area to that facility.

New highway facilities often introduce pressures for commercial development on adjacent lands. In this case, however, a number of factors are expected to lighten the impact of land use changes that would result from the realignment of this highway section. The realignment route runs through a sparsely used area. Much of the land is marsh land and the soils are unsuitable for septic tank drainage. Nearly all of the area contiguous to the highway right-of-way is zoned agricultural-forestry and residential.

Figure 16
DEVELOPMENT AREAS
WARRENTON



Source: Warrenton Comprehensive Plan

Development along the middle area of the new alignment in Alternative 1 would be limited further by the designation in the comprehensive plan of this area for "Restricted Land Use". This category is for those areas of marsh land, tidal flats and peat bogs which severely limit uses of the land. One of the areas in the city where this category exists is along both banks of the Skipanon River starting approximately south of S.E. 14th Street, running past Warrenton High School and south past the city limits. The plans recommend that this area be left in a generally undeveloped state. All proposals for development in this area would come under close scrutiny and review by the Warrenton Planning Commission and other public officials.

The new highway would have limited access, and the number of intersections would be small. For additional commercial development to occur along the new section of the highway, changes in the city and county comprehensive plans would need to be made. If changes were to be made at those locations in the county where no access is available, permission for access would have to be obtained from the Oregon State Highway Division. Within the city limits, the city can grant access. The recent adoption by Oregon of the Oregon Land Conservation and Development Commission goals and guidelines will require the city of Warrenton and Clatsop County to revise their comprehensive plans and zoning ordinances to bring their plans into compliance with statewide goals and guidelines. However, until such time as the revised documents have been adopted, the existing ordinances and plans are valid and binding.

Alternative 1 would be beneficial for the residential development north of the project, as called for in the comprehensive plan, since the new roadway would improve access to the area and would effectively transfer local traffic to the existing highway. The traffic and congestion in front of the high school would decrease with this alternative, thus decreasing accident potential at the school area. This would be a beneficial impact of Alternative 1.

The land use impacts associated with Alternative 2, improvement of the existing facility, would be moderately severe. The primary impacts associated with right-of-way acquisition and the displacement of many businesses and residential sites would be very detrimental. The secondary impacts would be moderate, since the existing land use along the highway has evolved in relation to the existence of a primary highway. Future traffic increases, along with the associated increases in noise and traffic speeds, would contribute to pressures for conversion of much of the adjacent land from residential to commercial uses. Unless mitigated by zoning and comprehensive land use plans, strip development, now at a minimum along the route, would increase. Access along the existing route would not be as limited as with Alternative 1.

The No-Build Alternative would have minor primary land use impacts. However, the long-range or secondary impacts would be similar to those associated with Alternative 2. Increased traffic, congestion, noise, and the many accesses on the poorly aligned road would decrease the desirability of living along the highway. Therefore, strip commercial development would probably result. As mentioned earlier, the comprehensive plan do not provide for Alternatives 2 and 3, since a new alignment is recommended and assumed.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Land Use	a. Primary impacts associated with right-of-way requirements would be moderate.	a. Primary impacts of right-of-way would be very severe.	a. In the long run, the no-build would bring pressures for conversion of residential use to non-residential use.

Alternative 1	Alternative 2	Alternative 3
	b. Increased traffic and associated effects would cause conversion of residential to non-residential uses.	b. Not recognized in local land use goals.
	c. Not recognized in land use plan.	

Mitigation of Adverse Impacts. Adverse land use changes would be mitigated by Clatsop County and Warrenton's comprehensive land use plans and zoning ordinances and subsequent revisions to those documents.

Regional and Local Transportation

Highways. The Oregon Coast Highway (U.S. 101) is the primary north-south arterial connecting communities, industrial sites, and ports along the west coast of the United States. This highway generally follows the coast, terminating at Olympia, Washington, to the north and the Mexican border to the south.

In Oregon, the highway is the western terminus for all major east-west highways connecting heavily populated inland regions with the coastal zone. Eight major routes connect the inland urban areas of Oregon with the coast and U.S. 101. Along the Oregon Coast, few alternative north-south routes are available.

Within Clatsop County, the coastal, Columbia River, and interior areas of the county are linked by three principal highways--U.S. 26, U.S. 30 (the Columbia River Highway), and State Route 202 (Figure 17).

Clatsop County has about 250 miles of highway on the Federal-Aid System--107 miles of primary, 60 miles of secondary and 81.5 of county road.

The average daily traffic on U.S. 101 in the vicinity of the project

area (data gathered from an automatic traffic recorder north of Gearhart) has increased 81 percent from 1957 to 1975 (Table 12).

TABLE 12

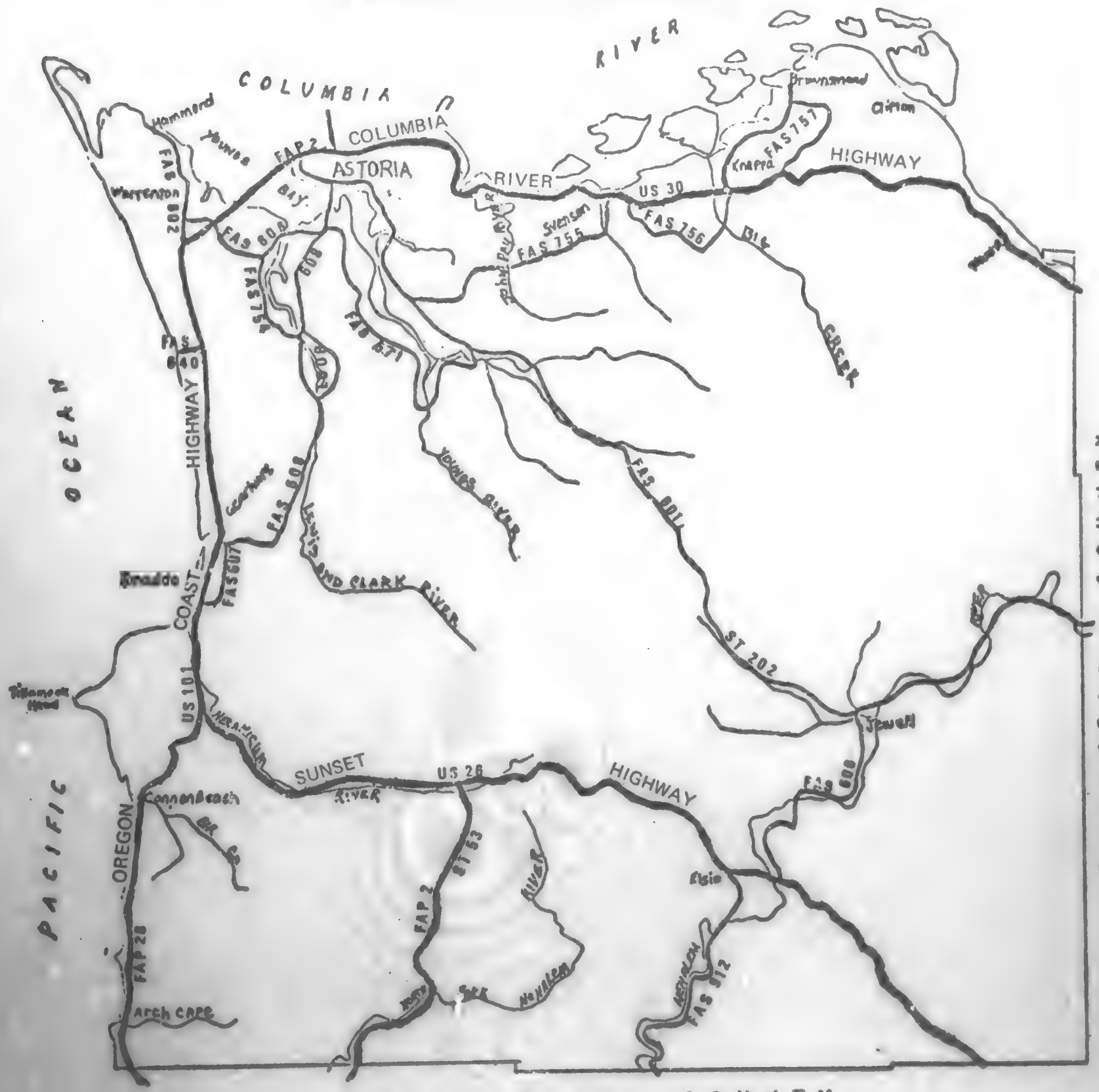
HISTORICAL TRAFFIC DATA

Year	Average Daily Traffic	Max. Day	Percent of Average Daily Traffic — Highest Hourly Volume				
			Max.	10th	20th	30th	50th
1957	3,018	246	23.6	19.7	18.2	17.7	16.4
1958	3,200	255	25.0	19.2	17.8	17.0	16.3
1959	3,229	258	23.1	20.7	19.7	18.5	16.5
1960	3,415	233	23.8	20.4	19.6	18.4	17.1
1961	3,387	264	24.8	21.3	20.0	18.9	17.2
1962	3,601	250	22.6	20.0	18.9	17.7	16.4
1963	3,611	231	25.2	20.0	18.4	17.3	16.1
1964	3,788	227	22.5	18.9	18.0	17.2	15.6
1965	4,276	233	24.2	18.2	17.3	16.6	15.6
1966	4,927	204	19.9	16.1	15.0	14.6	13.7
1967	4,949	235	23.0	20.3	18.5	17.6	16.4
1968	5,142	207	20.3	18.1	17.2	16.5	15.4
1969	5,095	213	22.0	18.6	17.8	16.7	15.6
1970	5,203	213	20.6	18.1	17.2	16.7	15.6
1971	5,317	209	19.2	17.9	16.9	16.3	15.4
1972	5,751	200	20.1	18.2	17.1	16.4	15.5
*1973	5,661	186	18.8	16.7	16.2	15.8	14.9
*1974	5,464	195	19.4	17.3	16.2	15.8	14.6
1975	6,069	187	17.8	15.8	15.1	14.7	14.1
1976	6,619	180	16.9	15.2	14.5	14.1	13.5

(Source: Oregon Department of Transportation, 1975)
*Gasoline shortage Threat

The recreational character of traffic on this section of the Oregon Coast Highway is evident in the seasonal trend and peak-hour volume characteristics observed at the Gearhart Recorder location. The nature of the seasonal trend on this highway may be noted from Table 13, which depicts the average daily traffic (ADT), by months, for the year 1974. It is immediately evident that the months with traffic above the annual average coincide with the vacation season and period of highest tourist travel. Beginning in late spring, a sharp increase occurs, and this continues through the summer to reach a peak in August. In 1974 the average daily traffic for this month was 8,450, 155 percent greater than the 5,464 average for the year at the Gearhart location.

Figure 17
HIGHWAYS IN CLATSOP COUNTY



EXISTING MAJOR FEDERAL AID ROAD SYSTEM
CLATSOP COUNTY, OREGON

Primary state highway
ST 202 Secondary state highway
County road (federal aid)

FAP federal aid primary
FAS federal aid secondary

Scale in Miles

Source: Clatsop-Tillamook Intergovernmental Council, 1974. District One Major Road and Highway Plan, Clatsop and Tillamook Counties.

The peak-hour volume characteristics of traffic at this location are illustrated in Table 14, which presents the highest-volume hours, volume and percentage of average daily traffic. The highest-volume hour, which occurred on Sunday, August 25, between the hours of 5 and 6 p.m., was 19.4 percent of ADT. The 30th highest-volume hour, generally taken as the design hour volume, was 15.8 of the ADT. This is considerably greater than the 12 to 14 percent relationship which is typical of rural state highways in Oregon. The largest number of hours observed at this location with disproportionally high traffic volumes, compared to the annual average, is the result of holiday and weekend traffic attracted to the beach and other recreational areas during the summer months.

TABLE 13

AVERAGE DAILY TRAFFIC BY MONTHS
(Gearhart Recorder U.S. 101)
1976

Month	Average Weekday Volume	Average Weekday Percent of ADT	Average Daily Volume	Average Daily Percent of ADT
January	4,685	71	4,612	70
February	4,848	73	5,015	76
March	5,287	80	5,499	83
April	5,854	88	6,183	93
May	6,313	95	6,756	102
June	7,360	111	7,879	119
July	8,689	131	9,223	139
August	9,222	139	9,634	146
September	7,431	112	7,796	118
October	6,029	91	5,969	90
November	5,688	86	5,689	86
December	5,406	82	5,173	78
1976 ADT			6,619	

(Source: Oregon Department of Transportation, 1975)

TABLE 14

HIGHEST-VOLUME HOURS
(Gearhart Recorder U.S. 101)

Day	Date	Hours	Volume	Percent of ADT
Sunday	08-25-74	1	1,058	19.4
Sunday	07-28-74	10	947	17.3
Sunday	07-28-74	20	884	16.2
Sunday	08-25-74	30	863	15.8
Saturday	07-20-74	40	831	15.2
Friday	08-16-74	50	796	14.6

(Source: Oregon Department of Transportation, 1974)

During 1974, the average daily traffic (ADT) on the South Unit, Astoria-Camp Rilea Section of U.S. 101 was 6,100 vehicles. Truck traffic amounts to nearly 10 percent of the total daily traffic. Calculated design capacity of the existing facility is 6,200 for the northern half and 5,000 for the southern half.

Transit. Transit in the area is limited to bus service. Greyhound Bus Lines provide two round trips each way daily through the corridor. There is no rail passenger service available.

Railroads. There is a grade crossing of the Burlington Northern Railroad on the existing highway. This crossing is protected by warning signs, flashing lights and gongs. Present train movement on the mainline is limited to two freight crossings per day.

Airports. Two airports in the region provide air transportation. The Clatsop County Airport is located on 870 acres, in Warrenton, approximately three miles southwest of Astoria and approximately one and one-half miles northeast of the northerly end of the subject highway project. The role of the Clatsop County Airport, since its inception in 1933, has been to serve the aviation needs of the area. These needs have included flight training, pleasure flying, air charters, agricultural application operations, commercial passenger service and military

aviation. The United States Coast Guard operates an air rescue station adjacent to the commercial operations. The National Weather Service of the U.S. Department of Commerce has a field station at the airport.

The airfield consists of three intersecting runways (13/31, 7/25, and 3/21), which are 5,059 feet, 4,796 feet, and 3,984 feet in length respectively. In accordance with the Clatsop County Airport Master Plan (Port of Astoria, 1975), total aircraft operations at the airport are expected to increase by 97 percent in the next twenty years. Total yearly operations will increase from the 1972 level of 23,880 to a high of some 47,070 by the forecast year 1990.

Seaside State Airport is north of Seaside between Gearhart and Seaside, east of U.S. 101. The small airport, 32 acres in size, has one runway, 2,357 feet in length. The airport has a paved apron and tie-down area, but no terminal or administration building.

Impacts. The build alternatives, Alternative 1 and 2, would significantly improve the transportation network in Clatsop County and the Warrenton-Astoria area by providing a wider, less curving alignment. Alternative 1, the new alignment, would provide the better transportation link since it would provide a direct alignment and bypass the built up south section of Warrenton and the many access points as referenced in the "Basis for Proposed Action" section of this statement. The new alignment (Alternative 1) is recommended by and in accordance with transportation goals and plans promulgated by the Clatsop-Tillamook Intergovernmental Council, Clatsop County and the City of Warrenton. These plans do not provide for Alternatives 2 and 3 and thus are not in accord with them.

Traffic projections for the project alternatives were made for the first year (1976), the tenth year (1986), and the twentieth year (1996). The results of those estimates are shown on Table 15. (Also see Table 16.) As noted, Alternative 1 would effectively transfer the through traffic to the new facility,

TABLE 15

TRAFFIC PROJECTIONS (ADT)
South Unit, Astoria-Camp Rilea Section

	Alt. 1 (Through Route)	Alt. 1 (Remaining on Existing Route)	Alt. 2 (Improve Existing)	Alt. 3 (No-Build)
Section A-B*				
Present (1975)	1700	4500	6200	6200
1st Year (1976)	1800	4700	6500	6500
10th Year (1986)	2200	5800	8000	8000
20th Year (1996)	2700	6800	9500	9500
Section B-C				
Present (1975)	2200	4400	6600	6600
1st Year (1976)	2300	4600	6900	6900
10th Year (1986)	2700	5700	8400	8400
20th Year (1996)	3200	6700	9900	9900
Section C-D				
Present (1975)	1600	4500	6100	6100
1st Year (1976)	1700	4700	6400	6400
10th Year (1986)	2100	5800	7900	7900
20th Year (1996)	2600	6800	9400	9400
Section D-E				
Present (1975)	6200	----	6200	6200
1st Year (1976)	6500	----	6500	6500
10th Year (1986)	8000	----	8000	8000
20th Year (1996)	9500	----	9500	9500
Section A-D				
Present (1975)	4500	----	----	----
1st Year (1976)	4700	----	----	----
10th Year (1986)	5800	----	----	----
20th Year (1996)	6900	----	----	----

*Note:

Point A -- North terminus of project
Point B -- Existing intersection of U.S. 101 and Fort Stevens Highway
Point C -- Existing intersection of U.S. 101 and DeLaura Beach Road
Point D -- Existing intersection of U.S. 101 and Ridge Road
Point E -- South terminus of project

(Source: Oregon Department of Transportation, 1975)

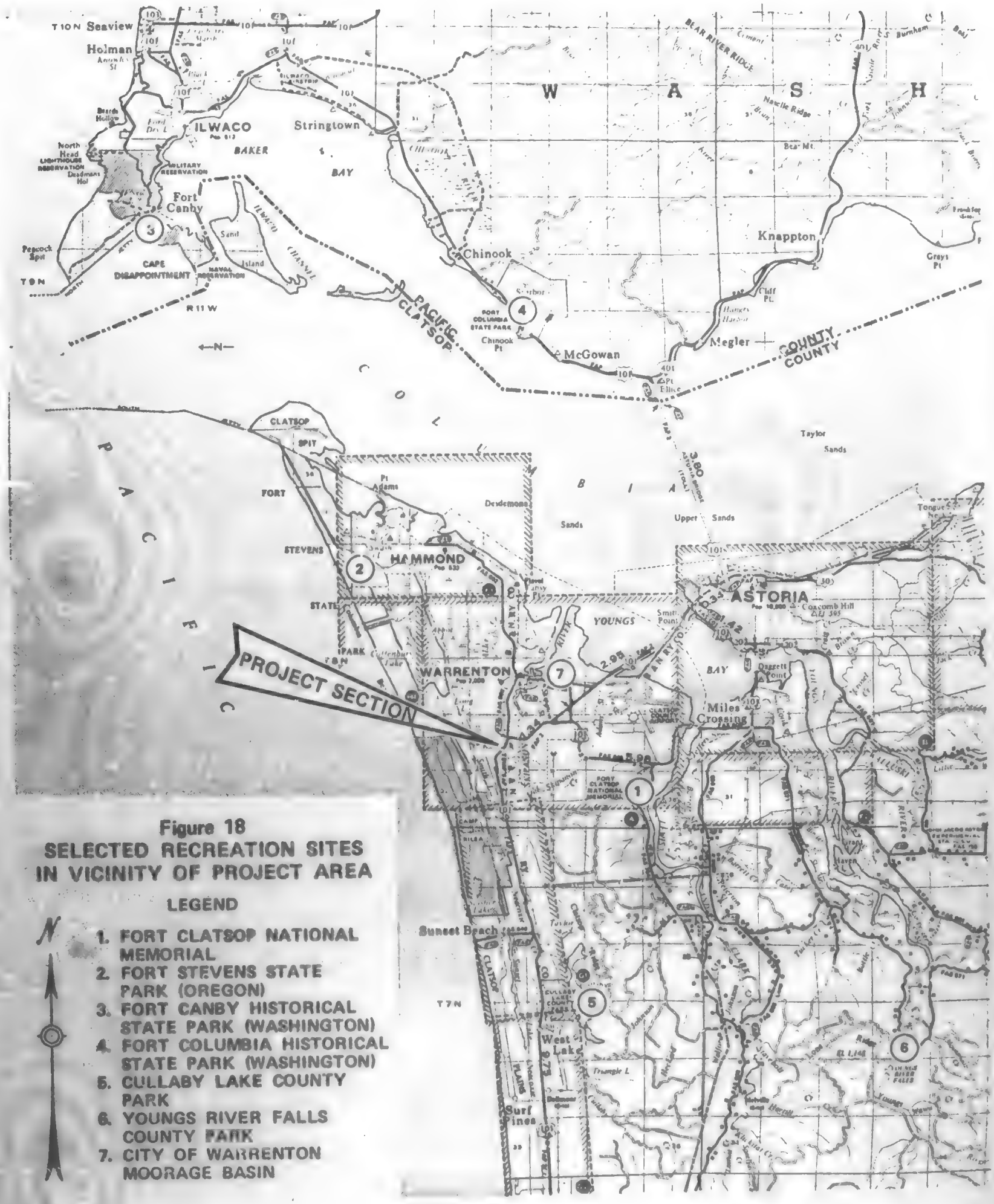


Figure 18
SELECTED RECREATION SITES IN VICINITY OF PROJECT AREA

LEGEND

1. FORT CLATSOP NATIONAL MEMORIAL
2. FORT STEVENS STATE PARK (OREGON)
3. FORT CANBY HISTORICAL STATE PARK (WASHINGTON)
4. FORT COLUMBIA HISTORICAL STATE PARK (WASHINGTON)
5. CULLABY LAKE COUNTY PARK
6. YOUNGS RIVER FALLS COUNTY PARK
7. CITY OF WARRENTON MOORAGE BASIN

leaving primarily local traffic on the existing route. With the new location of the highway, the existing highway would still have 2,600 vehicles on it in 1994. Assuming unrestricted travel and no improvements in public transportation, the projected 1996 average daily traffic on Alternatives 2 and 3 is 9,500 vehicles. The projected 1996 ADT on Alternative 1 would be 6,900 vehicles.

The project would have only minor impacts on the Burlington Northern Railroad mainlines. Both Alternatives 1 and 2 would have at-grade crossings of the railroad. Adequate warning signs and signals would insure safe crossing of the tracks by highway users.

The highway project would have minimal effects on the Clatsop County Airport. Alternative 1, the new alignment, would facilitate better regional access to and from the airport from the southern regions of the county. Alternatives 2 and 3 would have no changes.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Regional and Local Transportation	a. None	a. This Alternative is not discussed in local transportation goals and planning.	a. Not discussed in local transportation plans and goals.
		b. This alignment would perpetuate a poor alignment, although making minor improvements.	b. No-build would continue a poorly aligned and hazardous section of U.S. 101.

Mitigation of Adverse Impacts. None are identified nor required.

Recreation

Since the project is near the Pacific shoreline and the mouth of the

Columbia River, it is in an area that abounds with natural recreational attractions. The seashore, sand dunes, lakes, lowlands, valleys, rivers, and mountains all have distinctive physiographic features which provide a broad range of active and passive recreational opportunities. Important recreational pursuits which the area provides are beachcombing, clamming, surfing, swimming, boating, fishing (surf, fresh water and ocean), hunting, hiking, bicycling, camping and picnicking. In addition, the area contains many historic sites and places that attract recreationists.

A large sport fishing industry has developed in the area and several excellent moorage basins are in Hammond, Warrenton, and Astoria. The Oregon State Marine Board indicates that over 2,600 recreational/commercial marine vessels are registered (1974) in Clatsop County, up from 2,200 in 1973.

The coastal communities of Gearhart, Seaside and Cannon Beach are oriented primarily to recreational needs and purposes. These communities provide golf courses, resort accommodations and fine restaurants.

Within a fifteen-mile radius of the project are many developed or semi-developed public recreational sites and facilities, as listed and described in Appendix H. In addition to parks within Oregon, the state of Washington has several historical state parks on or near the north shore of the Columbia River. These parks are easily accessible to the project area by U.S. 101 across the Astoria-Megler bridge.

Three recreational areas (Figure 18) are within three miles of the U.S. 101 highway improvement area-Fort Stevens State Park, Fort Clatsop National memorial, and Cullaby Lake County Park. Fort Stevens State Park, containing 3,763 acres, lies three miles west of U.S. 101 and is accessible by the Fort Stevens Highway. Fort Clatsop National Memorial, administered by the National Park System, is two and one-half miles east of the project. Cullaby Lake County Park is 1.8 mile south of the southern terminus of the project.

The north coast area of Oregon is considered by many bicycle enthusiasts to be one of the most progressive in providing trails and paths for this fast-growing activity. Special bike lanes (Class III category) already connect Seaside and Cannon Beach (3.3 miles) along U.S. 101. Within Fort Stevens State Park, 7.3 miles of circular bicycle trails have been established by the State of Oregon.

Preliminary planning has begun in the Highway Division on a Pacific Coast Bicycle Route, from Washington state to California along the coast. The route of the Oregon section is under study. At present, the route would also use the Lewis and Clark county road, parallel and easterly of the existing U.S. 101 project area, in the northerly half of Clatsop County.

Impacts. None of the project alternatives would require right-of-way from or affect any land from a publicly owned parkland, recreational area, wildlife or water fowl refuge of local, state or national significance.

As noted, three parks are within a three-mile radius of the project. However, the build alternatives would not affect these parks. Alternative 1 would reroute the Oregon Coast Highway further east of Fort Stevens State Park. Access to this park and other parks in the immediate area would not change with

this routing. Signing to the parks on the new facility would guide visitors to the recreation sites. Alternative 1 would improve the transportation pattern in the area and would have no adverse effects on visitor use of the parks in Clatsop County and southern Washington.

Both Alternatives 1 and 2 would have Class III bike paths--designated lanes in portions of the paved shoulders of the roadway for the entire length of the improvement. Signing and striping would designate the areas for bicycle use.

The Pacific Coast Bicycle Route would not utilize this section of U.S. 101, therefore, this improvement would not affect the route.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Recreation	a. None	a. None	a. Projected traffic volumes on existing facility would cause congestion, especially during the summer vacation season & weekends. Convenient highway access to recreation areas would be reduced.

Mitigation of Adverse Impacts. None required.

Access

Alternative 1 would have controlled and limited access. From north to

south on the new alignment, there would be four major roadway intersections or connections: (a) Alternate 101 (SE 12th Place); (b) Dolphin Avenue; (c) on revised frontage road plan Ridge Road would connect to old 101 as present. Existing 101--Perkins Road; and (d) Camp Rilea Road. At the southern end of the route, many private driveways would connect with Alternative 1.

On Alternative 2, access to the roadway would not be controlled as well as with Alternative 1. Access limitations would be difficult to implement, due to the numerous existing connections. Major roadway intersections along this route, from north to south, would be the following: (a) Alternate 101 (S.E. 12th Place); (b) Dolphin Avenue; (c) Fort Stevens Highway (OR 104 or Main Street in Warrenton); (d) Whiskey Road; (e) DeLaura Beach Road; (f) Ridge Road; (g) Camp Rilea Road; and (h) Perkins Road. Numerous driveway accesses from residential and commercial sites would be required.

On Alternative 3 there would be no change.

Impacts. Alternative 1 would change access the more significantly of the two build alternatives. Approximately 1,000 feet of new facility would be built from southerly of the Ridge Road and the existing U.S. 101 intersection to a new direct connection with Perkins Road. This new connection would obliterate a small section of the existing pavement. In addition, a new north-south access road (driveway) to the Clatsop Plains Pioneer Presbyterian Church, at the southerly end of the project, would be constructed off Camp Rilea Road. At the present, the church access is on U.S. 101.

The effects of these access changes would be minor. The new alignment would serve through traffic. Local traffic would be able to safely use the existing bypassed section of 101. Visitors to Fort Stevens (from the south) would continue to use the existing route with no routing change in getting to the park.

Alternative 2 would have no changes.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Access	a. Minor change in access, since new route by-passes existing section of U.S. 101.	a. No change	a. Increased residential & commercial development along the section would require additional access points.

Mitigation of Adverse Impacts. None required.

Emergency Services and Schools

Fire protection in the city limits of Warrenton and in the rural area of Clatsop County surrounding Warrenton is provided by the Warrenton Fire Department. There are two fire districts--the city district and also a rural fire protection district which serves the southern area of the project. Warrenton's fire department is a volunteer department with a staff of thirty. Equipment consists of three large fire trucks, a water pumper and a rescue unit manned by three qualified paramedics. The fire station is located on Second Street and Main in Warrenton.

There are no hospitals or clinics in Warrenton. Emergency service is provided by a volunteer ambulance service which operates in conjunction with the fire department in Warrenton. Additional emergency service is provided by the Emergency Medical Ambulance Service in Astoria.

Hospitals are in Astoria (the Memorial Unit and the Columbia Unit of the Columbia Memorial Hospital) and Seaside (Seaside General Hospital).

Police protection in the project area is provided by the Warrenton Police, Clatsop County Sheriff's Office, and the State Patrol.

The city of Warrenton is served by the Warrenton-Hammond School District Number 30. The district encompasses the coastal area including Hammond, Warrenton, the area immediately south of the Warrenton city limits, and an area in the northeastern part of Clatsop County, south of Wauna and Westport. Total enrollment in the district is approximately 650 students.

Two schools are in Warrenton--the high school and junior high. The elementary school is in Hammond. The high school, with 240 students, is located on the east side of U.S. 101 near the intersection of the Fort Stevens Highway (Main Street). The junior high (340 students) is two blocks west of Main Street in Warrenton on Ninth Street. Eight buses are used for transporting the stud-

ents of the district. Students are picked up and unloaded along the highway section. The shoulders are narrow and provide poor stopping areas for the buses when picking up students.

At Warrenton High School, most of the students are bused or ride to and from school by private car. Approximately forty student cars are driven to school each day. Four buses are in and out each school day, although other bus trips during the day result from work-study programs, IED (Intermediate Education District--a vocational program), and the transporting of special-education and handicapped students. Many of the students at the high school leave at noon to eat at local Warrenton restaurants or at home. Therefore, during school days, students are frequently crossing U.S. 101 or being transported on this route. The principal of the high school, upon being interviewed recently, could recall no student accidents or deaths near the school in recent history.

Impacts. Alternative 1, the new alignment, would decrease travel distance and time. In emergency situations, this is a very beneficial effect. Furthermore, dividing local from through traffic would decrease the traffic and congestion on the existing section of U.S. 101. This would aid in the smooth and rapid movement of emergency vehicles along the existing section and the new route. Alternative 2 would not change the situation appreciably. With Alternative 3, the No-Build Alternative, the situation would deteriorate.

The presence of a school near a major highway always poses a potential safety problem for student pedestrians, the students being bused, and highway users, as well. Some of these high school students walk to school, using the shoulder of the highway as their sidewalk. Since students are going to and returning from school at about the same time as the heaviest traffic periods, the potential for accidents increases. Alternative 1 would lessen the student-highway user conflict, since the highway would be rerouted away from the school.

For Alternatives 2 and 3, the potential for conflict would increase with traffic increases along the route in front of the school. However, Alternative 2 has wide paved shoulders which would provide sufficient and safe areas for buses picking up or letting off students in the area and for pedestrian travel.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Emergency Services and Schools	a. None	a. This alternative would increase the potential for student accidents near the Warrenton High School.	a. Increased traffic and congestion on this highway would impede emergency services and pose a safety problem for school children.

Mitigation of Adverse Impacts. Although increased volumes of traffic would continue to be routed in front of the school, the 8-foot wide shoulders of Alternative 2 would provide safe areas for pedestrians, bicycle riders, and bus riders, boarding or deboarding.

Safety

During the period January 1, 1970, through December 31, 1974, the accident rate for this section of highway was 2.7 accidents per million vehicle miles. This compares with a statewide rate for similar types of highway of 1.9 accidents per million vehicle miles.

During that time period, there were 82 collisions, a majority of which were rear-end and turning accidents. One person has been killed in this section and many people injured in these 82 accidents.

Impacts. Alternatives 1 and 2, new highways upgraded to current safety standards, should provide a significant reduction of accident potential. Alter-

native 1 would reduce the potential even further since the number of intersections and accesses would be reduced. Also, the Warrenton High School and built-up section of southern Warrenton would be bypassed. Most of the non-intersectional accidents, including sideswipe, non-collision and fixed object types, would appear to be preventable by construction of the new section. Left-turn refuges at major intersections should reduce rear-end collisions.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Safety	a. None	a. Many access points and the high school student traffic would continue to pose safety problems.	a. Potential for accidents would continue to increase with the no-build situation.

Mitigation of Adverse Impacts. No means of mitigation are identified.

Utilities and Services

Impacts. The proposed project would have only minor impacts on existing utilities, including water, sewer, electric power, and telephone services. Water and sewer facilities are provided along the northerly section of the existing highway. However, these public services are not provided along the southerly portion of the existing route and in the area of the new alignment (Alternative 1). Some routine adjustment to existing utility lines would be required, but no prolonged service disruption or increased costs are anticipated as a result of construction.

ADVERSE IMPACTS			
	Alternative 1	Alternative 2	Alternative 3
Utilities and Services	a. None	a. None	a. None

Mitigation of Adverse Impacts. Normal coordination with the affected utility and service agencies would be conducted by the Oregon State Highway Division.

Air Quality

The Astoria-Camp Rilea Section is located entirely within a semi-rural area, removed from any point source of air pollutants.[4] Average daily traffic ranges from 6,100 to 6,600 vehicles, with maximum daily volumes during the summer months approaching 12,500 vehicles. (Table 16). There is no known air quality problem in the area, and none would be expected in light of the moderate traffic volumes and absence of contaminant sources.

A qualitative estimate of ambient air quality has been made by the Oregon Department of Environmental Quality. Measurements and estimates of ambient air quality were made to help categorize air quality in various interstate and intrastate air quality control regions. The proposed project lies in one of these regions, the Northwest Intrastate Air Quality Control Region (AQCR No. 192), as designated in the Oregon Clean Air Act Implementation Plan.

[4]A major industrial site is located adjacent to the proposed project. Future industrial development is not perceived as a result of this project; however, such development would necessitate further investigation of air quality, dependent on traffic impacts and pollutants emitted from industrial point sources.

Table 16
ASTORIA-CAMP RILEA SECTION
TRAFFIC DATA SUMMARY

Alternative	Year	Average Daily Traffic	Max Daily Traffic (% of ADT)	Travel Speeds	Weighted Average Travel Speed	Percent Trucks	Route Miles 4-Lane	Route Miles 2-Lane	Route Miles Total	Daily Vehicle Miles of Travel
No Build	1975	6100-6200	190	35-50	42.5	5	0.00	3.24	3.24	20,086
	1976	6400-6500	190	35-50	42.5	5	0.00	3.24	3.24	21,058
	1986	7900-8000	180	30-40	36.0	5	0.00	3.24	3.24	25,918
	1996	9400-9500	165	20-30	26.0	5	0.00	3.24	3.24	30,778
Widen Existing Roadway Alternative 2	1975	6100-6600	190	40-55	50.6	5	3.24	0.00	3.24	20,086
	1976	6400-6900	190	40-55	50.6	5	3.24	0.00	3.24	21,058
	1986	7900-8400	180	40-55	50.6	5	3.24	0.00	3.24	25,918
	1996	9400-9900	165	35-50	45.6	5	3.24	0.00	3.24	30,778
New Alignment Alternative 1	1975	1600-6200	190	40-55	52.7	3-6	0.96	4.11*	5.07*	18,087
	1976	1700-6500	190	40-55	52.7	3-6	0.96	4.11*	5.07*	18,969
	1986	2100-8000	180	40-55	52.7	3-6	0.96	4.11*	5.07*	23,334
	1996	2600-9500	165	35-55	49.9	3-6	0.96	4.11*	5.07*	27,927

*Includes 2.28 miles of the existing facility to be retained for local access.

ROBERT W. STRAUB
GOVERNOR

Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND. OREGON 97205 Telephone (503) 229- 6086

August 12, 1977

Mr. Gary A. Potter, Manager
Environmental Section
Oregon State Highway Division
Transportation Building
Salem, Oregon 97310

Re: Astoria-Camp Rilea Section
Oregon Coast Highway (US 101)
Draft Environmental Impact Statement

Dear Mr. Potter:

I have reviewed the above referenced document and concur with the findings of your Department that the proposed project and its alternatives are consistent with the State of Oregon Clean Air Act Implementation Plan.

Please let me know if any additional comments are desired from the Department.

Sincerely,

Anthony J. George, Jr.
Transportation Control Program
Coordinator

AJG:h

Contains Recycled Materials

DEQ-1

Each region is classified by pollutants at three levels of magnitude:

> Priority I--Measurements of pollutants and/or estimates of population density indicate that control of pollutant emissions is necessary.
>
> Priority II--Same as above except that need for control action is marginal.
>
> Priority III--Measurements of pollutants and/or estimates of population density indicate that exceeding standards is unlikely and that control measures are currently unnecessary.

As reported in the Implementation Plan, the Northwest Intrastate Air Quality Control Region has a Priority III rating for all automotive air pollutants and, hence, is considered to have excellent air quality with regard to these pollutants.[5]

Impacts. No meteorological data are available in the immediate project vicinity. The climate of the area is typical of that in other areas slightly inland from the Oregon coast, with an annual mean temperature of approximately 50 degrees. Annual variations in temperatures ranges from the mid 30's to high 60's. The month of September exhibits the highest percent of calms (wind speeds under 3 mph) with a wind direction of north-northwest. Surface-based inversion frequency is near 40 percent.[6]

Existing air pollution levels were evaluated, and predictions were made for future air quality impact for the years 1976, 1986, 1996, for the three alternatives. The total emissions for all alternatives are calculated by con-

[5]These pollutants are carbon monoxide, nitrogen dioxide and photochemical oxidant. A Priority III rating is also designed for suspended particulates and sulfur dioxide, although these pollutants are not normally associated primarily with automotive sources. Mr. John Core of the Oregon Department of Environmental Quality, during a telephone conversation on September 2, 1975, stated that recent data did not indicate any trend which would alter the Priority III ratings in this area. The background concentration of carbon monoxide, a pollutant contributed mainly by motor vehicles, is estimated by DEQ to be near zero.

[6]Low wind speed and surface-based inversions combine to produce conditions favorable to high pollutant concentrations and are used to determine "worst-case" predictions of air quality.

sidering distance traveled, average daily traffic, emission factors of vehicles, speed adjustment factors, etc. A summary of existing and predicted total carbon monoxide emissions is shown in Table 17.

TABLE 17

TOTAL CARBON MONOXIDE EMISSIONS
(Tons/Year)

Alternative	1975	1976	1986*	1996
A. New Alignment Alternative 1	329	319	23 (36)	30
B. Widening Existing Roadway Alternative 2	368	356	26 (42)	36
C. No-Build Alternative 3	406	393	34 (55)	63

(Source: Calculated from EPA publication AP-42, September 5, 1975.)

*Numbers in parentheses represent total emissions should a five-year delay in vehicle emission standards be adopted by Congress.

As can be seen in the table above, the selection of either construction alternative provides for a reduction in total carbon monoxide emissions below levels which presently exist. (See Table 18 for the National Air Quality Standards.) Carbon monoxide emissions associated with Alternative 2 are less than those of the No-Build Alternative, due to higher travel speeds resulting from the widening of the existing roadway. Alternative 1 provides for an even greater reduction, due to higher speeds and a shorter route. A computer prediction[7] model was used to calculate carbon monoxide concentrations immediately adjacent to

[7]Systems, Science and Software, The S^3 EXPLOR Code, Report No. SS-0-73-1601.

Table 18
NATIONAL AIR QUALITY STANDARDS

POLLUTANT	DESCRIPTION	SAMPLING PERIOD	LOWEST CONCENTRATION FOUND TO PRODUCE ADVERSE HEALTH EFFECTS	PRIMARY STANDARD	MARGIN OF SAFETY	SECONDARY STANDARD
Sulfer Oxides	Result primarily from the combustion of sulfer containing fossil fuels. Their presence has been associated with the increased incidence of respiratory diseases, increased death rates and property damage.	Annual arithmetic mean	115 ug/m^3	80 ug/m^3	30%	60 ug/m^3
		24-hour maximum*	300-1500 ug/m^3 occuring for three to four days**	365 ug/m^3	0 to 76%	260 ug/m^3
		3-hour maximum*	---	---	---	1,300 ug/m^3
Particulate Matter	Particulate matter, either solid or liquid, may originate in nature or as a result of industrial processes and other human activities. By itself or in association with other pollutants, particulate matter may injure the lungs or cause adverse effects elsewhere in the body. Particulates also reduce visibility and contribute to property damage and soiling.	Annual geometric mean	30-100 ug/m^3**	75 ug/m^3 (DEQ) 60 ug/m^3	6 to 25% 25 to 40%	60 ug/m^3
		24-hour maximum*	300 ug/m^3**	260 ug/m^3	13%	150 ug/m^3
Carbon Monoxide	Carbon monoxide is a by-product of the incomplete burning of carbon-containing fuels and of some industrial processes. The most abundant source of this pollutant is the internal combustion engine. It decreases the oxygen-carrying ability of the blood and, at levels often found in city air, may impair mental processes.	8-hour maximum*	12-17 mg/m^3	10 mg/m^3	17 to 41%	Same as Primary
		1-hour maximum*	58 mg/m^3	40 mg/m^3	31%	Same as Primary
Photochemical Oxidants	Photochemical oxidants are produced in the atmosphere when reactive organic substances, chiefly hydrocarbons, and nitrogen oxides are exposed to sunlight. Photochemical oxidants irritate mucous membranes, reduce resistance to respiratory infection, damage plants and contribute to the deterioration of materials.	1-hour maximum*	200 ug/m^3 (maximum daily value)	160 ug/m^3	20%	Same as Primary
Hydrocarbons	Hydrocarbons in the air come mainly from the processing, marketing and use of petroleum products. Some of the hydrocarbons combine with nitrogen oxides in the air to form photochemical oxidants. The hydrocarbons standard therefore, is for use as a guide in devising implementation plans to achieve the oxidant standard.	3-hour maximum* (measured between 6 and 9 a.m.)	Adverse health effects noted only after reaction to form photochemical oxidant.	160 ug/m^3	---	Same as Primary
Nitrogen Oxides	Nitrogen oxides ususally originate in high-temperature combustion processes. The presence of nitrogen dioxide in the air has been associated with a variety of respiratory diseases. Nitrogen dioxide is essential in the natural production of photochemical oxidant.	Annual arithmetic mean	118-156 ug/m^3 (mean 24-hour concentration over six month period)	100 ug/m^3	15 to 36%	Same as Primary
Lead***	Airborne lead results primarily from automotive emissions. Symptoms of mild lead intoxication include loss of appetite, drowsiness and abdominal pain. Ingestion is the prime method leading to elevated blood-lead levels. Airborne lead, by settling out, may contaminate dirt and dust thus becoming potentially harmful.	One Month Average*	---	3 ug/m^3	---	---

* Not to be exceeded more than once annually.

** Combined effect of both gaseous phase and particulate.

*** No National Standard for this pollutant exists, however DEQ has adopted a lead standard for projects in Oregon.

ug/m^3 = micrograms per cubic meter

mg/m^3 = milligrams per cubic meter

the proposed facility under worst-case meteorological conditions for the No-Build Alternative.[8] The result of this computer model indicates that the maximum carbon monoxide concentration, at a distance of approximately 100 feet from the highway centerline, will be less than 4 mg/m.[6] In light of this fact, it can be predicted that none of the alternatives, including the No-Build Alternative, would adversely affect the existing air quality in the project area; all alternatives are therefore consistent with the Oregon Clean Air Act Implementation Plan.

Traffic delays and detours during construction will undoubtedly result in higher pollutants concentrations near the roadway but should in no way be of sufficient magnitude to jeopardize local air quality. Normal mitigation techniques should be sufficient in the alleviation of any dust problems associated with construction activities.

The Oregon State Highway Division has determined that all the alternatives associated with this project are consistent with the goals of the State of Oregon, Clean Air Act Implementation Plan. The project does not require application for an Indirect Source Permit having traffic volumes considerably lower than the warrants of OAR, Chapter 340, Section 20-115, Paragraph (c)(11). Concurrence with the Division's determinations regarding the above has been requested from the Oregon Department of Environmental Quality.

ADVERSE IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Air Quality	a. None	a. None	a. None

[6]Low wind speed and surface-based inversions combine to produce conditions favorable to high pollutant concentrations and are used to determine "worst-case" predictions of air quality.

[8]The No-Build Alternative was used due to highest total emissions. "Worst-case" was a 1 MPH wind at right angle to the road under isothermal conditions.

Mitigation of Adverse Impacts. None required.

Acoustical Analysis

The area adjacent to the existing section of the Oregon Coast Highway is intensively developed, primarily with residential development. Most residences in the project area are on or near the existing highway and are therefore subject to all of the adverse noise impacts derived from motor vehicles.

The present noise environment along the existing roadway was determined by two methods--one through use of sound sensing and recording equipment placed and operated at specific sites in or near the area of interest, and the other through use of approved/preferred computer models.[9] The three sites are shown in Figure 19. Roadway geometrics and traffic data (volumes, speeds, and so on) of the existing facilities were then used to obtain a computer indication of existing noise levels. Table 19 presents both the measured and the computed site values. The L_{10} sound levels are those that are exceeded ten percent of the time (the tenth percentile) for the period under consideration. The L_{10} sound level is largely influenced by the number and speed of trucks and is used in the Federal Highway Administration guidelines to estimate noise impact on land-use sites. This value is an indicator of both the magnitude and frequency of occurrence of the loudest noise events. (Additional background information on acoustical analysis is found in Appendix I.)

[9]Federal Highway Administration Policy Procedure Memorandum (PPM) 90-2 approved two computer models to be used in noise level predictions; the TSC (Transportation System Center) and the NCHRP 117 (National Cooperative Highway Research Program).

The Federal Highway Administration guidelines (PPM 90-2) state that for the land use along this highway, the receptors (residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sport areas, and parks) should not be exposed to noise greater than 70 dBA more than 10 percent of the time (L_{10}).

TABLE 19

EXISTING SOUND LEVELS (L_{10} and L_{50})

Site	Measured (dBA)	Calculated (dBA)
1	L_{10} 70	L_{10} 73
2	L_{10} 71	L_{10} 74
3	L_{10} 70	L_{10} 73

NOTE: The measured levels are based on an average hourly vehicle load of 440. The calculated levels are based on an average hourly load of 1,000.

Impacts. The existing highway corridor is divided into four sections--AB, BC, CD, and DE--for identifying and performing the noise analysis calculations (Figure 19). As measured, the present traffic generates noise levels of 70 dBA or greater at L_{10} for the following distances: (a) Along both sides of Section AB, the 70 dBA penetrates for approximately 130 feet; (b) for Section BC, 140 feet; (c) for Section CD, 125 feet; and (d) 120 feet along Section DE (Table 20).

On-site noise measurements are available only for the existing condition. To determine future noise levels (1996), noise predictions were made using the NCHRP 117 computer program model. The particular roadway geometrics and the

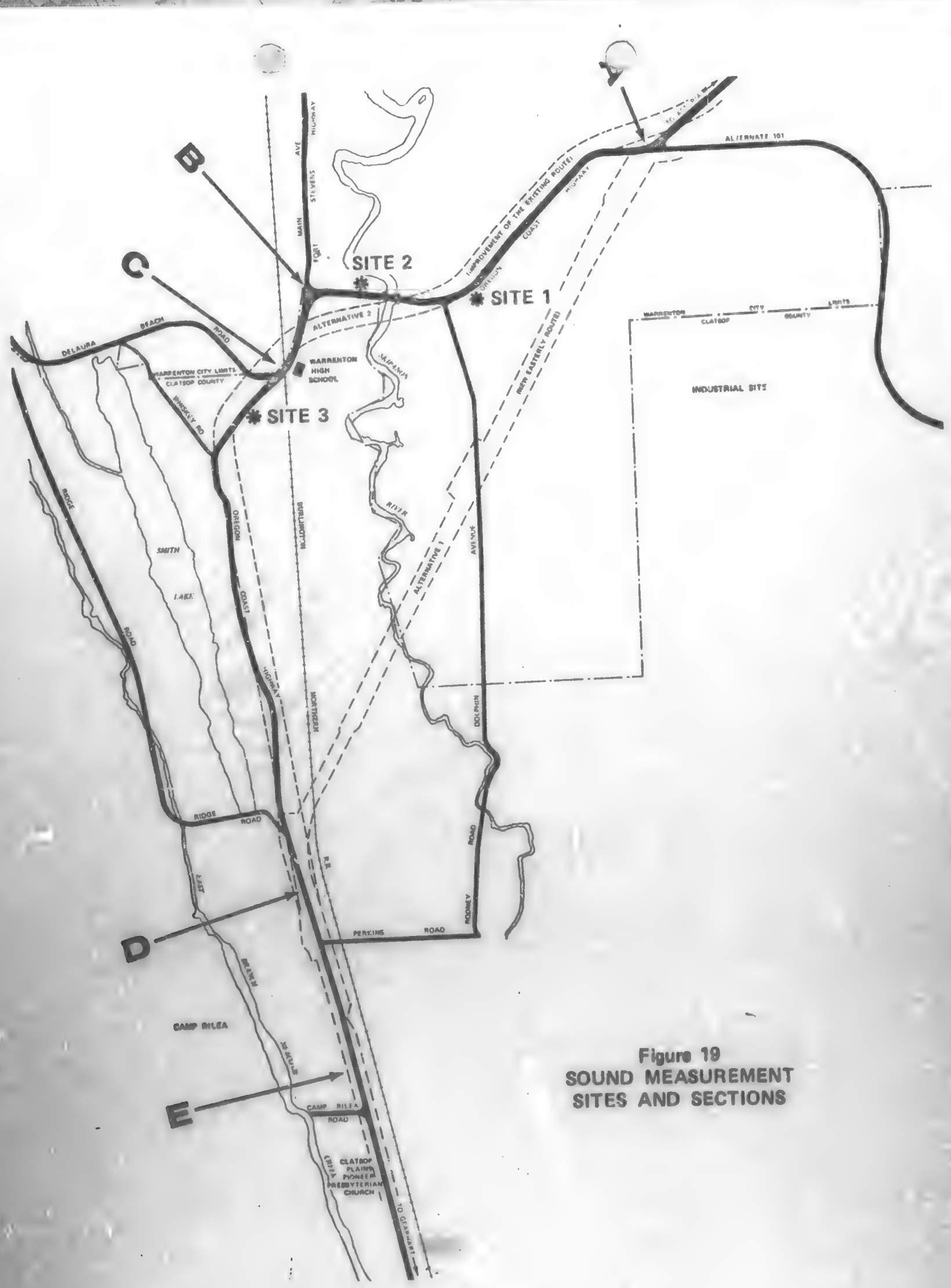


Figure 19
SOUND MEASUREMENT SITES AND SECTIONS

anticipated traffic information were used as the basis for the mathematical manipulations required in the predictions. The estimated (1996) L_{10} noise level, due to the increase in volume and reduced speed for Alternative 3, the No-Build, would extend 70 dBA level from the edge of the roadway 175 feet for Section AB, 180 feet along Section BC, 175 feet for Section CD, and 160 feet in Section DE. On the average, the 1996 L_{10} dBA contour would extend its penetrating distance approximately 45 feet beyond the existing distance (Table 20).

TABLE 20

ADVERSE NOISE DISTANCES (IN FEET) FROM EDGE OF THE ROADWAY
(FHWA Guideline 70 dBA or Greater at L_{10})

Highway Section*	Alternative 1		Alternative 2		Alternative 3	
	1975	1996	1975	1996	1975	1996
AB	---	---	110	130 (20)	130	175 (45)
BC	---	---	125	150 (25)	140	180 (40)
CD	---	---	110	130 (20)	125	175 (50)
DE	110	140 (30)[1]	110	135 (25)	120	160 (40)
AD	100	125 (25)	---	---	---	---

[1]Figures in parentheses are the increases from 1975 to 1996.
*Refer to Figure 19 for location of highway sections.

In summary, for the No-Build Alternative, most of the homes (those within 120 to 140 feet of the roadway) along the existing Oregon Coast Highway are exposed to noise levels in excess of the FHWA L_{10} 70 dBA guideline. The anticipated noise increase (1996) would be considered slight, since existing residences and structures would experience a 2 to 3 dBA increase in noise and the L_{10} 70 dBA level will extend only an additional 45 feet outward from the highway, the generator of adverse noise.

Alternative 2, the improved alignment in the existing corridor, would require a right-of-way corridor two hundred feet in width. To improve the alignment of the existing highway, many signle-family and multi-family residences would be displaced, thus eliminating many of the critical noise receptors. At some loca-

tions (the Warrenton High School for example), the relocated roadway would be further away from critical receptors.

Based on the present traffic volumes, class, and increased speeds, the present (1975) situation for Alternative 2 was computed for L_{10} 70 dBA distances. At present, the L_{10} 70 dBA distances for Section AB would be 110 feet; Section BC would be 125 feet; Section CD, 110 feet; and Section DE, 110 feet.

For the projected year (1996), the distances for L_{10} 70 dBA would be as follows: Section AB, 130 feet; Section BC, 150 feet; Section CD, 130 feet; and Section DE, 135 feet, (Table 20).

For Alternative 2, calculated (1975) L_{10} 70 dBA levels extend approximately 110 to 125 feet from the roadway. The alignment would remove many of the impacted receptors, and the roadway/receptor relationship for the remaining ones will be about the same as presently exist. The noise level at the remaining receptors would not be much greater than is presently being experienced. Vehicle use in 1996 would increase the noise level protruding distance about 20 feet (from the edge of the roadway), as compared to the 1975 condition. This additional depth would subject approximately six more receptors to noise level in excess of 70 dBA 10 percent of the time. Alternative 2 would increase the adverse noise impact.

Alternative 1, the new route, crosses an undeveloped area from Stations 180 to 270. The remainder of the route would be constructed on the same alignment as Alternative 2. Again, the NCHRP Computer Model 117 was used to determine L_{10} 70 dBA levels for the anticipated noise after construction, 1975, and for the projected year, 1996. Section AD, the straight portion of the new route, was estimated to yield L_{10} 70 dBA levels 100 feet from the edge of the new roadway (1975). Section DE would exhibit L_{10} 70 dBA levels approximately 110 feet from the roadway. The 1996 predictions indicate 125 feet on Section AD and 140 feet on Section DE, an average increase of 25 to 40 feet from 1975.

Due to the lack of development in the area of Section AD, there are few critical receptors. Therefore, the new alignment would create no adverse impacts in this section. At the southern end, Section DE, the impact receptors would be the same as for Alternative 2. For those few houses that are adjacent to the highway at the southern end (Alternative 2), the noise impacts would be severe. However, implementation of the new alignment (Alternative 1) would reduce the traffic on the existing highway, and consequently reduce the noise levels to within Federal guidelines.

IMPACTS

	Alternative 1	Alternative 2	Alternative 3
Acoustical Analysis	a. Adverse noise impact would be experienced by those residents on the southern end of the project.	a. Improvement of the existing highway would decrease adverse noise levels in the short run. In the long run (1996), the noise levels for the remaining receptors would increase, but less than those with Alternative 3.	a. Most homes along the existing highway are already exposed to adverse noise impacts. b. Adverse noise levels would increase by 1996.

Mitigation of Impacts. The highway project would decrease the noise impacts on residents in the area in relationship to the "do-nothing" alternative. Adverse noise levels are already being experienced at most of

the homes along the route. As designs for the proposal are developed, the feasibility of implementing specific noise mitigative measures will be investigated and documented in a subsequent noise study report.

Construction Activities

Construction of either Alternative 1 or Alternative 2 would take two construction seasons or about two years. During this construction period, several temporary, short-term, and localized impacts would occur.

Impacts. Alternative 1, the new alignment, would minimize many of these construction impacts since the majority of construction would be in an undeveloped area, isolated from most residences and businesses. Noise, dust and vibration problems resulting from earthmoving equipment would affect only residences near the north and south termini of the project. Since this would be a new route, existing traffic would continue to utilize the existing section of U.S. 101. Therefore, the level of service on the highway would not decrease druing the construction season and only temporary delays would be created for road users. Business activity along the existing route would not be adversely affected during the build stage of the project.

Alternative 2, improvement of the existing route, would cause more adverse construction impacts than Alternative 1, since this existing route is lined with residence and businesses. Adverse noise, generated by heavy construction equipment and trucks, would affect most of the residences along the route. Localized construction activity would cause dust and temporary reduction in air quality. Traffic using the existing facility would have to compete with construction activity. The service level of the existing facility would be reduced due to traffic delays, small detours and reduced safe speeds through

the construction area. No new detour route would be constructed. The improvement of the facility would be completed in stages so that part of the existing facility could be used at all times. Some existing access points would be temporarily and intermittently closed. Thus, businesses along the route may experience some decreased patronage during the construction period due to the traffic inconvenience.

As indicated in the section on materials, this project would require two material sources--one for rock used in surfacing and the other, sand for the foundation. The relative impacts of each of the four rock sources and two sand sources investigated by the Oregon State Highway Division are discussed in Table 3 and Appendix B. The two sand sources are relatively close to the project--one is 0.2-mile south and the otheris about two miles north. The rock sources under investigation are further away--7, 13, 14, and 17 miles, respectively. The exact haul route from each of the possible sources to the project construction area has not been delineated. However, any of the routes would adversely affect the residences and businesses along that route. Frequent and numerous heavy truck taffic on the haul route would contribute to increased noise levels and congestion and decreased safety and traffic flow. During the period of hauling material, the residents along the haul route would be inconvenienced and made uncomfortable by the heavy truck traffic.

Mitigation of Adverse Impacts. Construction nosie impacts at existing residences within the project limits would be minimized by scheduling construction activities during the day (7 a.m.-6 p.m.) rather than during normal sleeping hours. Temporary measures such as scheduling of generators and other noisy equipment would be implemented, as well as assuring that effective exhaust and muffler systems are maintained. Air pollution and other adverse impacts associated with the construction of the project are controlled by the standard specifications in force on all contracts. In addition, the contractor must conform to all pertinent statutes, laws, ordinances, rules and regulations of the Federal, State, and local governments.

Interagency Coordination and Permits

The project notification and review procedure (A-95 Clearinghouse) was initiated on this project on November 24, 1975. This notification informed Federal, state, and local agencies of the Highway Division project plans and elicited comments on the project. The review was completed on December 23, 1975. The conclusion reached was that no significant conflict exists with the plans, policies or programs of state government.

The Oregon Department of Fish and Wildlife and the United States Fish and Wildlife Service has been contacted during the planning stages of this project. Mitigative recommendations on fish and wildlife protection will be incorporated into the design as the project develops.

The project would require the construction of a new bridge across the Skipanon River. The United States Coast Guard requires a permit for crossings over navigable water, and will require a permit for the proposed bridge of the selected alternative. The bridge locations for Alternatives 1 and 2 would be upstream of the existing bridge.

Since the project requires a channel change in the Skipanon River, permits will be required from the Corps of Engineers and the Oregon Division of State Lands. These permits have been granted.

Comparative Summary of Impacts

Location and construction of the proposed project in either the new route (Alternative 1) or in the existing route (Alternative 2) would have significant impacts upon the physical and cultural environments of the area. Likewise, the do-nothing alternative (Alternative 3) would affect the environment.

The composition of impacts would differ substantially between the new route and the existing route. In summary, if the new route is selected, the physical environment would be more adversely affected. Conversely, improvement of the existing route would more adversely affect the cultural environment. Table 21 below evaluates the impacts of the three alternatives considered in this highway project. (For comparison of the project alternatives, refer back to Table 1.)

Table 21

SUMMARY EVALUATION OF IMPACTS

Concern	(Selected Alt.) Alternative 1	Alternative 2	Alternative 3
1. Topography and Geology	Alignment crosses a lowland boggy area. Little impact on overall topography.	Minor impact	No impact
2. Soils	Alignment crosses highly compressible soils, poorly suited for road foundations.	Minor impact	No impact
3. Ground Water	Local changes in ground water movement may occur.	Minor impact	No impact
4. Erosion	Twenty-two acres would be exposed. (Seeding and mulching required.)	Minor impact	No impact

Concern	(Selected Alt.) Alternative 1	Alternative 2	Alternative 3
5. Materials	General and embankment foundation excavation would include 234,000 c.y.; Alignment required 125,000 c y. of sand and 38,000 tons of aggregate.	General excavation would be 256,000 c.y., of which 40% would be waste material; Waste or storage site would be required; Surfacing material would be 73,000 tons; Sand backfilling, 30,000 c.y.; Sand base, 127,000 tons.	Continued maintenance of the existing section would require the use of materials and money.
6. Skipanon River Flood Plain	Encroachment on the flood plain (previously diked).	Minimal impact	No impact
7. River Hydrology	Minor impediment of water flow.	Minimal impact	No impact
8. Water Quality	Project would have minor effects on water quality.	Minor effects on water quality.	No impact
9. Aquatic Habitat	Bridge crossing, channel change, and drainage changes would moderately affect habitat.	Bridge crossing, removal of the old bridge, and drainage changes would minimally affect the aquatic habitat.	Existing bridge would require total replacement as soon as possible. New bridge would minimally affect the aquatic habitat.
10. Terrestrial and Wildlife Habitat	Wetland and forest land habitat would be destroyed.	Moderate habitat destruction.	No impact
11. Vegetation Communities	Major amounts of vegetation loss.	Moderate loss	No impact
12. Wildlife	Moderate impact on wildlife. (Moderate habitat loss for three threatened or endangered species.)	Moderate impact	Minor impact

Concern	(Selected Alt.) Alternative 1	Alternative 2	Alternative 3
13. Historical Sites	Minor access change to historical church and cemetery. One-half are of land required for right-of-way from Century Farm.	Same	No impact
14. Economy and Employment	New transportation link would improve economy by providing better service and improved routing. Several businesses on existing route would be bypassed and experience some economic decline	Low rate of economic return on this improvement	Existing highway hinders local economy due to excessive highway user costs of a substandard facility.
15. Right-Of-Way	Approx. 70 acres totally to highway use (54 acres already acquired).	Approx. 80 acres totally to highway use. Right-of-way already acquired for Alternative 1 would be surplus.	Right-of-way acquired for Alternative 1 would be unused and surplus.
16. Displacement and Relocation	Additional right-of-way would affect one commercial & 4 residential properties, relocation would be required.	Three commercial, 45 single-family & 29 multi-family residences would be affected and relocation would be required. Suitable replacement housing would be a problem.	No impact
17. Land Use	Recognized and recommended in local adopted land use plans. Minor land use changes.	Not recognized in local comprehensive plans Moderate land use changes.	Not recognized in local comprehensive plans.
18. Regional and Local Transportation	New route would improve regional & local transportion. Would separate local & through traffic.	Although improving the highway, the basic poor alignment would remain.	Projected traffic increases would exceed capacity of highway. No-Build would perpetuate use of a substandard highway.

ern	(Selected Alt.) Alternative 1	Alternative 2	Alternative 3
Recreation	New route would improve access to recreational facilities in the area. Bike lanes added.	No change in area recreational access. Bike lanes added.	Projected traffic volumes on existing facility would cause congestion, especially during the summer vacation season and weekends. Convenient highway access to recreation areas would be reduced.
Access	Limited control access.	Limited access control is not possible.	Increased residential and commercial development along the section would require additional access points.
Emergency Services	Would decrease travel time for emergency vehicles.	Minor improvement	Travel time would increase with increased traffic volumes, reduced level of service and more congestion. This situation would impede emergency vehicles.
Safety and Schools	Would improve safety.	Would increase potential for student accidents near Warrenton High School.	Potential for pedestiran & traffic accidents would increase.
Air Quality	Provides the greater reduction in carbon monoxide emissions.	Lesser reduction in carbon monoxide emissions, as compared to Alt. 1.	High level of total carbon monoxide concentrations but well below adverse air pollution levels.
Acoustical Analysis	Adverse noise impacts would be reduced, except at southern end of project where there are many receptors.	Slight decrease in adverse noise levels initially. In long term, adverse noise levels would increase.	Noise impacts, already adverse, would increase along the highway.

PROBABLE UNAVOIDABLE ADVERSE ENVIRONMENTAL EFFECTS

Although mitigative measures would reduce the severity of some impacts, there would remain some adverse environmental effects which would be unavoidable. These effects are listed below:

ALTERNATIVE 1--New Easterly Route (Selected Alternative)

A. The soils in the lowland area have high water and compressible organic content (including peat). Special construction techniques to establish a firm roadbed in these soils would require additional materials, manpower and energy.

B. This alignment crosses the boggy flood plain (diked) of the Skipanon River.

C. The project may cause local changes in ground water levels and movement.

D. The construction of the new bridge across the Skipanon River and the channel change would moderately degrade the aquatic habitat.

E. Clearing and grubbing for highway construction would destroy wetland (about four acres) and forest land habitat.

F. Replacing existing forest and shrubs with well drained grassy slopes would favor a simplistic faunal community at the expense of a complex one.

G. The impact on wildlife would be moderate, including a moderate (but not critical) habitat loss for three endangered or threatened species.

H. The potential for economic decline is evident for commercial businesses along the existing highway that depend strongly on tourism and through traffic for their survival due to the bypassing of these businesses.

I. This alternative would cause the relocation of one commercial operation and five families.

J. Adverse noise levels would increase at several residences at the southern end of the project (with or without the project).

ALTERNATIVE 2--Improvement of the Existing Route

A. This realignment would require a new bridge across the Skipanon River. Construction of the new bridge and removal of the existing one would affect the aquatic habitat.

B. Construction of this alternative would exhibit a low rate of economic return for the investment, since the basic poor alignment would remain.

C. The right-of-way requirements for this alternative would cause many residential and commercial relocations--3 commercial, 45 single-family, and 29 multi-family residences. Finding suitable housing might prove difficult, since a limited amount of replacement housing exists in the area.

D. Right-of-way already acquired for Alternative 1 would be unused and surplus.

E. This alternative is not provided for in the local comprehensive plans.

F. This alignment would be near a school, thus increasing the potential for student-related accidents.

G. Control of access would be difficult, due to the numerous connections existing along the route.

H. Adverse noise levels, already being experienced at some residences along the route, would increase even though right-of-way requirements would eliminate many critical receptors.

ALTERNATIVE 3--No-Build or No-Action Alternative

A. This alternative would continue use of a substandard highway section.

B. Existing and projected traffic volume increase would exceed the design capacity of the roadway, thus decreasing the level of service and safety.

C. The continued use of the existing highway would increase vehicle operating costs and travel time for the highway user and adversely affect the local and regional economy.

D. Maintenance costs (man power, materials and energy) would increase. The basic configuration of the highway section negates adequate improvement through maintenance.

E. The existing U.S. 101 bridge over the Skipanon River requires total replacement as soon as funds are available.

F. Unless the section is improved, safety conditions for motorized traffic, school children, pedestrians, and bicycle traffic would continue to worsen.

G. Noise levels at many of the residences along the route are already exceeding FHWA guidelines. These noise levels would increase and would consequently affect more residences.

H. Anticipated residential and commercial development along the section would increase the number of access points, thus increasing the potential for accidents and slowing the flow of traffic.

I. Right-of-way already acquired for Alternative 1 would be unused and surplus.

RELATIONSHIP BETWEEN SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

In the short term, this highway project would involve converting private land to public use, clearing and grubbing, acquiring suitable materials, and construction of the new highway facility. Prior to construction, additional right-of-way would be acquired at fair market value. Those commercial businesses and residences requiring relocation would be assisted to find suitable substitute housing and commercial sites. During construction of the project, temporary noise, dust, and degradation of water quality may occur. The project would involve construction in the streambed of the Skipanon River. Riparian and terrestrial habitat for wildlife would be destroyed. Short-term exposure of cut and fill slopes could be cause for potential erosion until seeding and mulching stabilized these areas.

The construction period would aid employment and would bring additional money into the local economy. Construction of the new highway would temporarily and intermittently cause inconvenience and delay to users of the Oregon Coast Highway. This would especially be true of Alternative 2, since this is a basic widening of the existing facility. With Alternative 1, the existing highway would serve as a detour route.

In the long term, the project would include both benefits and losses. Either build alternative would facilitate the flow of traffic by relieving congestion, increasing safety, shortening travel distance and time, and eliminating hazardous curves. The new alignment would be more beneficial to the highway user. The new alignment would be attractive to one or more firms locating on the industrial site adjacent to this alignment; the choice of an alternative may be a factor in the decision-making of a firm

locating on this site. Either build alternative will reduce congestion which occurs on weekends and during the summer months. The new alignment will, in addition, separate the through from the local traffic. By relieving congestion and in the case of the new alignment, separating traffic, the area may become more attractive for coastal tourists in the area. In doing so, it would increase activity in the tourist industry in this area. However, this increase would be slight since the reduction in total travel time by most tourists would be very small.

Alternative 1 would decrease commercial activity of a tourist-oriented nature on the bypassed old roadway. It would, however, introduce pressures for more intensive development of those suitable areas along the new highway and at major intersections. Local land use plans would guide such development. However, adverse noise levels along the existing highway would decrease with Alternative 1. If traffic projections are realized, some residential areas adjacent to the new route at the southern end would be subject to noise levels in excess of current Federal Highway Administration guidelines. For Alternative 2, most of the area along the highway would experience adverse noise levels. Long-term wildlife losses would be greatest for Alternative 1.

Alternative 3, the no-build alternative, would be a continuation of the status quo--use of a poorly aligned, substandard, narrow highway. At present, the design capacity is moderately being exceeded. However, in the long-term, traffic volume projections indicate a 64% increase by 1994. This increase, without a major improvement to the highway section, would result in a severe reduction in the serviceability of the section and safety. The inadequate facility would negatively affect the economy of the area by increasing travel costs and time and decreasing convenience.

Maintenance costs would spiral upward with the increased traffic volumes and advanced age of the facility.

Long-term planning for an integrated highway and transportation system in Clatsop County requires that action be implemented as soon as possible to improve this section. Expediting the implementation of this project would avoid the pitfalls of escalating highway construction costs which penalize the tax-paying public.

IRREVERSIBLE AND IRRETRIEVABLE COMMITMENTS OF RESOURCES

Public funds committed for planning, environmental reporting, location, design, and construction of the project are irretrievable for other purposes. (A portion of the construction funds would appear in the local economy as wages, materials, and services.) The amount of these funds is a measure of the resources used for the project. It is estimated that it would cost $3.29 million (in 1976 dollars) to construct the new alignment (Alternative 1) and $5.47 million (1976) for widening the existing alignment (Alternative 2). The Federal Government would pay for 85 percent of the project, matched by 15 percent of State funds. If this project is not built, these funds would be allocated for other projects in the state.

The land acquired for the project would be committed to transportation use, thereby closing the options for other uses. Human resources, materials, and energy expended on the development and construction of the project would also be unavailable for other uses.

Comments And Responses:

The following agencies offered comments to the Draft Environmental Impact Statement.

Federal:

U.S. Department of Agriculture
U.S. Department of the Interior
U.S. Environmental Protection Agency

State:

Department of Agriculture
Department of Fish and Wildlife
Division of State Lands
Land Conservation and Development Commission

Local:

Clatsop County
Clatsop - Tillamook Intergovernmental Council

The comments by these agencies are included in full, and responded to as follows:

UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
16th Floor, 1220 S. W. Third, Portland, Oregon 97204

August 10, 1976

Mr. George N. Hopkins
Project Development Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Mr. Hopkins:

We have reviewed your draft Environmental Impact Statement for the South Unit, Astoria-Camp Rilea Section, Oregon Coast Highway (U.S. 101) Clatsop County and have no comments.

We appreciated the opportunity to review this document.

Sincerely yours,

Guy W. Nutt
State Conservationist

cc:
Office of the Coordinator of Environmental Activities
Office of the Secretary, USDA, Washington, D.C.
Administrator, SCS, Washington, D.C.
Chairman, Council on Environmental Quality, Washington, D.C.

Response to comment by U.S. Department of Agriculture.

Comment Noted.

United States Department of the Interior

OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20240

In Reply Refer To:
L7619-MQ
(ER-76/642)

Dear Mr. Green:

This is in response to the request for the Department of the Interior's comments on the draft environmental statement for Oregon Coast Highway, U.S. 101, South Unit, Astoria-Camp Rilea Section, Clatsop County, Oregon.

General Comments

1 It is noted in various draft sections that no discussion of secondary impacts is included. The possible influx of urban, commercial, and industrial development along the new highway should be identified and evaluated, particularly as they relate to possible environmental degradation and impact on natural resources.

All project alternatives require bridge and/or causeway construction involving Skipanon River and Youngs Bay. These are navigable Federal waters. Accordingly, comments on this draft statement do not in any way preclude additional and separate evaluation and comments by the Fish and Wildlife Service, pursuant to the Fish and Wildlife Coordination Act (16 U.S.C. 661, et seq.), if eventual project development requires a permit from the U.S. Coast Guard and/or the U.S. Army Corps of Engineers (Sections 9 and 10 of the River and Harbor Act of 1899 and Section 404 of P.L. 92-500). In reviewing applications for such permits, the Fish and Wildlife Service may concur, with or without stipulations, or object to the proposed work, depending on project effects which may be evident at that time on fish and wildlife resources.

Environmental Impact Statement Comments

2 The list of fish species on page 33, second paragraph, includes "brown crappies" which is not included in the American Fishery Society's list of Common and Scientific Names of Fishes. This species should be omitted in the final statement.

3 Pages 53 through 55 indicate that the project will affect some known, and may affect other presently unrecorded, cultural properties and indicate that some measures to minimize these effects will be incorporated

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

2

into the project. However, in order to permit proper evaluation of environmental impacts, development of impact avoidance and mitigating measures and satisfaction of the requirements of E.O. 11593, Section 106 of the National Historic Preservation Act of 1966, and possibly Section 4(f) of the DOT Act, additional study, consultation, and project planning are required prior to decisionmaking. 3

Archeological resources within the project area should be located and identified. An archeological survey of the project area conducted by professional archeologists is recommended to accomplish this task. Those archeological resources discovered, as well as the C.A. Fertig home and any other historic properties that may be affected by the project, should be evaluated for their local, State, or national significance and for their eligibility for listing on the National Register of Historic Places [36 CFR 800.4(a)(2)]. 4

Efforts should be made to avoid adverse impacts to significant cultural resources, or if avoidance is not feasible and prudent, to incorporate all possible measures to minimize harm to such resources. After these steps have been taken, it will be possible to assess and consider the remaining adverse impacts to cultural resources. The Federal Highway Administration's EIS procedures, 23 CFR Part 771, especially Sections 771.18(m), 771.19 and 771.20 and the Advisory Council on Historic Preservation procedures, 36 CFR Part 800, provide general guidance for the consideration of cultural resources in further planning for the project.

Sincerely yours,

(Sgd) Stanley D. Doremus

Deputy Assistant Secretary of the Interior

Mr. Glen L. Green
Division Administrator
Federal Highway Administration
P.O. Box 300
Salem, Oregon 97301

cc: Mr. George N. Hopkins
Oregon State Highway Division

Response to Comments by the U.S. Department of the Interior

1. This has been discussed in the Draft EIS (pp. 69-74). The area through which the adopted alignment is going to pass, although it is presently open space with some wildlife habitat involved, was selected as the direction in which the local citizens and government would like to procede. Prior to this, the local government had already zoned the area as low density residential, industrial and agricultural (see zoning map in DEIS, figure 15), and the area was planned for those uses ultimately. It was noted in the DEIS that construction of Alternative One may induce more pressure for this type of development, but that the local land use laws in fact control the ultimate use.

2. The term "Brown Crappies" has been omitted.

3. Additional study, consultation, and planning is reflected in the Historical Resources Section of the FEIS.

4. An archeological survey has been conducted. Refer to text.

U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION X
1200 SIXTH AVENUE
SEATTLE, WASHINGTON 98101

REPLY TO ATTN OF: 10FA - M/S 623

AUG 18 1976

Mr. George N. Hopkins
Project Development Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Mr. Hopkins:

We have reviewed the draft environmental impact statement on the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway. We hope the following comments and suggestions will be useful to you in preparing the final statement.

1. Although we agree with the conclusion presented in the DEIS that the existing air quality in the area is good and that the air quality impact of the proposed facility will be insignificant, we would like to suggest that the final EIS identify the year for which the computer model made predictions of CO concentrations. In order to assure that this projection is truly representative of worst-case conditions, the most appropriate year of analysis would be that in which the combination of increased traffic volumes and reduced emissions, due to the Federal Motor Vehicle Control Program, resulted in the most significant impact on air quality. If this does not describe the year modeled in the DEIS analysis, the FEIS should include results of the air quality analysis for the worst-case year.

2. The opening sentence on page 97 states, "The area adjacent to the existing section of the Oregon Coast Highway is intensively developed, primarily with residential development." In order to present a more accurate assessment of noise impacts to this residential area, noise measurements should have been taken at 15-20 sites rather than at only three as described in the statement. In addition, the acoustical analysis should define the time of day when the existing noise was measured, the data sample rate, and the data recording duration.

3. The addition of a series of map overlays indicating the existing and predicted noise levels and the location of residences relative to the highway centerline would present a clearer picture of the noise problem and would make the discussion of noise impacts easier to follow.

4. Tables 19 and 20 present noise comparisons between existing and predicted noise levels. The DEIS does not define the traffic speed or truck mix percentage for the existing or the predicted noise levels. What are the speeds and truck mix for each?

5. Solid wastes will probably be generated by clearing and grubbing, demolition, and construction activities associated with the project. How and where will these solid wastes be disposed of?

6. The final EIS should describe what actions will be taken in the event that oil or hazardous materials spills occur either during or after construction. How will spills be reported and to whom? What organization will be responsible for control and clean up?

Based on our review and comments, the Environmental Protection Agency has rated this draft environmental impact statement LO-2, LO (Lack of Objections), 2 (Insufficient Information). The rating and the date of EPA's comments will be published in the Federal Register in accordance with our responsibility to inform the public of our views on proposed Federal actions under Section 309 of the Clean Air Act, as amended.

Thank you for the opportunity to review this draft environmental impact statement.

Sincerely,

Walter D. Jaspers

Walter D. Jaspers
Director
Office of Federal Affairs

Response to Comments by the U.S. Environmental Protection Agency.

1. The Worst case year studied in the D.E.I.S. was 1976, or the proposed year of completion. We have completed an assessment using the computer program E.M.C.A.L., assuming a new year of completion, 1977. The results of this computer program, which analyses the combined effect of increased traffic volumes (and in some cases lower travel speeds) and reduced emissions projected with the Federal Motor Vehicle Control Program (with and without delays in strategy), indicate that the potential for air quality impacts will be highest in 1977. All years after 1977 through 1996 exhibit lower potential for impacts. Thus the predictions made for 1976 in the D.E.I.S. are still valid although slightly over predictive if considering 1977 as the year of completion.

2. The F.H.P.M. 7-7-3 allows experienced Acoustical Engineers to judge the number and location of sites that acoustical measurements should be taken. This judgement is based on factors such as topography, type of noise generators and type and number of critical receptors (such as schools, hospitals, etc.). Because few critical receptors project area and the lack of significant noise generators are to be found in the project area, the selection of extensive measurement sites were not deemed necessary.

   The time of day, sampling rate, and recording duration are listed for each sample.

3. Comment noted.

4. Relevant data is included is included on following page.

4. Traffic Loading Data Used In Computerized Noise Level Predictions

Alternative #1

NEW ALIGNMENT

Year	Segment	Vol.	T. mix	ST.	SA.
75	$\overline{AD}$	720	8%	50	55
96		966	8%	50	55
75	$\overline{DE}$	922	7%	50	55
96		1330	7%	45	50

Alternative #2

RE-ALIGNMENT

75	$\overline{AB}$	995	7%	45	50
96		1330	7%	40	45
75	$\overline{BC}$	1056	7%	35	40
96		1386	7%	30	35
75	$\overline{CD}$	976	7%	45	50
96		1316	7%	40	45
	$\overline{DE}$	Same as new alignment			

NO-BUILD

Year	Segment	Vol.	T. mix	ST	SA
75	$\overline{AB}$	992	7%	35	40
96		1235	7%	20	25
75	$\overline{BC}$	1056	7%	30	35
96		1287	7%	20	20
75	$\overline{CD}$	976	7%	35	40
96		1222	7%	20	25
75	$\overline{DE}$	992	7%	45	50
96		1235	7%	25	30

5. Unless otherwise specified in special provisions, all materials, items, things, and debris involved, occuring or resulting from the clearing, grubbing, and clean-up work shall become the property of the contractor and shall be disposed of by him in conformance to all laws, regulations and rules legally imposed on such activities and in conformance to the provisions set forth in Sections 107 and 201 of the Oregon State Highway Division Standard Specifications For Highway Construction. Waste materials may either be burned within the highway, according to Specifications, or deposited on a private site in accordance with local and state laws.

6. The party that is responsible for oil or hazardous materials spills is also responsible for prevention measures, notification, and clean-up, regardless of the cause of any spills. In the event of an oil spill, the Oregon Department of Environmental Quality should be notified immediately. This can be accomplished through the U.S. Coast Guard which maintains a 24 hour emergency phone in Portland. The number is 221-2994. In the event of a chemical spill, the State Emergency Services Division in Salem should be notified at 378-4124.

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

-130-

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

LOCAL GOVERNMENT RELATIONS DIV.
JUL 8 1976

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - - -

REMARKS

We support the draft environmental impact statement of Oregon State Highway Division as prepared. This section of U.S. Highway 101 is subjected to heavy commercial and recreational traffic often creating severe congestion resulting in extremely dangerous situations.

Highway 101 in this section of Clatsop County serves as an economic lifeline for Astoria, Seaside and other communities.

This project should be given high priority by the Oregon State Highway Division.

Agency Agriculture By Don McKenzie 7/7/76

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

-131-

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

(X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - - -

REMARKS

The following areas of concern need to be made a part of the project during construction:

1. In-stream work to be during summer months (June 15-September 15).
2. Berms and/or dikes be adequately protected to prevent turbidity from entering waterways.

Agency Fish & Wildlife By Norman Behrens
ENVIRONMENTAL MANAGEMENT SECTION 7/26/76

OREGON PROJECT NOTIFICATION AND RE[illegible]SYSTEM

-132-

STATE CLEARINGHOUSE

AUG 2 1976

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

RECEIVED
JUL - 2 1976
DIVISION OF STATE LANDS

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

(xx) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - - -

REMARKS

The Department of Fish and Wildlife recommendations for mitigation mentioned on page 39 of the draft should be included in the final EIS.

If the project would require the removal, fill or alteration of 50 cubic yards or more of material within the banks of a waterway, we urge the applicant to apply for state fill or removal permits well in advance of construction deaulines to prevent unnecessary project delays. Specific information on the need for permits may be obtained from the Division of State Lands' office at 1445 State Street, Salem, OR 97310. Phone 378-3805.

Thank you for the opportunity to comment on this project.

Agency Lands By Jan Haley

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

-133-

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

DEPARTMENT OF
LAND CONSERVATION
AND DEVELOPMENT
JUL - 6 1976
SALEM

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

JUL 16 1976

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

7604-4-1140

REMARKS

Land use decisions on the proposed alternatives and their related land use implications must be coordinated and consistent with the Clatsop County comprehensive plan and efforts to update the plan (i.e. the Clatsop County compliance schedule and work program for reaching compliance with Statewide Land Use Goals.

Consideration of the relationship between the Statewide Land Use Goals, particularly Transportation and Open Space, Historical and Natural Resources, and the alternatives should receive special attention. In addition, through the process for selecting an alternative every effort should be made to use recognized citizen and agency involvement programs established by the local jurisdiction in accordance with the Statewide Land Use Goals.

Agency LCDC By Darnell Hopp for John Eisele

Response to Comments by (1) Oregon Department of Agriculture, (2) Oregon Department of Fish and Wildlife, and (3) Oregon Division of State Lands:

Comments Noted.

Response to Comments by the Oregon Land Conservation and Development Commission.

The proposed alignment is compliance with Clatsop Counties Comprehensive planning efforts!/ The County position with regard to the tradeoffs between Statewide Goal number 5 and Goal number 12 has not changed significantly since opting for a highway improvement over maintenance of the open space presently found in the area of the proposed alignment.

Since the citizens of Clatsop County through their local planning Commission and County government, decided on the proposed alternative, (alignment #1), a decision has been made as per the Comprehensive Planning process.

1/ Data gathered from personal interview with Clatsop County Senior Planner on April 5, 1977.

CLATSOP-TILLAMOOK
INTERGOVERNMENTAL COUNCIL

Box 488 • Cannon Beach, Oregon 97110 • Phone 436-2967

Jack Lesch, Director

July 20, 1976

Mr. Glen Green
Division Administrator
Federal Highway Administration
P. O. Box 300
Salem, OR 97308

RE: South Unit, Astoria-Camp Rilea Section Oregon Coast Highway (U. S. 101) Clatsop County, Oregon. Draft Environmental Impact Statement.

Dear Mr. Green:

All of the social, physical and economic impacts indicate that alternative one merits further consideration and therefore the Clatsop-Tillamook Intergovernmental Council's (CTIC) staff favors this alignment. In addition, this alignment is recommended in all affected local land use and transportation plans.

In order for full endorsement of this alignment by the Council membership, there must be assurance that potential LCDC goal conflicts, if any, exist, are resolved between the appropriate agencies.

The CTIC staff feels that a statement indicating compliance and/or conflict with the LCDC goals that pertain to this project should be included in the final EIS.

Thank you for the opportunity to review this EIS.

Sincerely,

Dennis R Rittenback

Dennis R. Rittenback
Resource Planner

DRR:bha

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103

September 21, 1976

Mr. Glen Green
Division Administrator
Federal Highway Administration
P. O. Box 300
Salem, Oregon 97308

Re: South Unit, Astoria-Camp Rilea Section Oregon Coast Highway (U.S. 101), Clatsop County, Oregon, Draft Environmental Impact Statement

Dear Mr. Green:

It is acknowledged that any alteration in a highway will result in both positive and negative impacts. The Clatsop County Planning Commission and Department of Planning and Development recognize that there will be damage to the natural environment in alternative one. We also acknowledge that alternative two would "wipe-out" an existing neighborhood; and alternative three would perpetuate the poor conditions now existing on that stretch of the highway. Of the three alternatives studied, we feel that alternative one is preferred over the other two.

The proposed highway improvement of alternative one for the South Unit is in conformance with the Clatsop County Comprehensive Plan map and text. However, before a complete approval of the alternative one alignment can be made, it is felt that the Land Conservation and Development Commission's goals that might pertain to this project be addressed and assurance be given that conflicts, if any, are or have to be resolved.

The Department of Planning and Development and the Clatsop County Planning Commission feel that a statement indicating compliance and/or conflict with the LCDC goals that pertain to the project should be included in the final Environmental Impact Statement (EIS). It is also felt that the highway should be restricted to its role as a major arterial of the County and not allowed to deteriorate into a "local" road clogged with access points. We ask that access be fully controlled and that only existing roads or the development of frontage roads be used in the future.

Thank you.

Sincerely,

David Pratt, Chairman
Clatsop County Planning Commission

Curtis J. Schneider, Planning Director
Department of Planning and Development

CJS:dmb

Response to Comments by:

Clatsop County Planning Commission
Clatsop-Tillamook Intergovernmental Council

RESPONSE:

Since both Clatsop County and the city of Warrenton have included a highway bypass route (the adopted alignment) in their comprehensive plans, the tradeoffs between LCDC's transportation goal and open spaces, Scenic and Historic Area, and Natural Resources Goal have already been considered by the local government. The conflict was resolved in Clatsop County two or three years ago.

OSHD does not have any control over what development if any, takes place along the new alignment, the local governments have that control. Their land use plans and zoning ordinances are the controls needed to restrict or allow development as they see fit.

Access points to the new highway are granted by OSHD and are determined on the basis of safety, however, generally they try to comply with the needs and desires of the local governments.

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APPENDIX A

Geologic Hazards and Soils

I. Geologic Hazards

Table 2 identified in abbreviated form the various geologic hazards and mitigations associated with the new alignment alternative (Alternative 1). Contained below is the back-up information for that table plus a discussion of the proposed structure across the Skipanon River.

It should be recognized that highway construction is a dynamic undertaking in which changes in plans must be made as field conditions dictate. For this reason, the size designations of culverts are omitted, and the stations locating them should be considered as not firm.

Stations 168+00 to 175+75

This is the north end, which tapers onto the existing highway.

Mitigation

No problems are anticipated. A culvert pipe is planned for Station 169+75.

Stations 175+75 to 183+35

These stations involve the intersection area with the existing highway and its alternate.

Mitigation

No problems are anticipated. A culvert pipe is planned for Station 177+65.

Stations 180+00 to 188+00

Auger probings indicate unstable foundation soils, consisting of layers of silt and peat high in water content, to depths of 9 to 15 feet below land surface (b.l.s.). Below these depths, adequate foundation was found in stiff clays between Stations 180+00 to 183+00, and in sand south of Station 188+00.

Mitigation

Sand and/or excavated material totaling a maximum height of 10 to 15 feet will be deposited throughout this fill section. (Final determination of where excavated material will be placed throughout the project has not been made.) The rate of placing the fill material should be limited to a 4-foot increase in height in any consecutive 30 days after the height reaches 10 feet above ground. Such a controlled rate of deposition is necessary to avoid breaking the foundation. Foundation failures are unlikely to occur at other locations, but if one develops, a counterbalance can be added on each side of the fill.

OSHD Standard Specifications for Highway Construction, 1974, Subsection 203.39, requires that sand fill, except as otherwise specified, be deposited in layers not exceeding 8 inches in thickness, and that each layer be separately and thoroughly compacted.

It has been recommended that about 4½ feet of surcharge (additional fill material placed to accelerate the rate of consolidation of compressible foundation soils) be used between Stations 184+00 and 187+00, and that all other fills exclusive of those subexcavated (excavated below grade, in which backfill is placed for stability), be surcharged about 3½ feet. Surcharges should be in place not less than six months unless level measurements show that settlement is completed earlier. The waste surcharge material will be wasted on the fill side slopes.

A culvert pipe is planned for Station 184+75.

Stations 188+00 to 211+25

Drill holes showed water at 11 feet b.l.s. at Station 190+00 and at 9 feet b.l.s. at Station 194+50 in this long cut adjacent to land cleared for the Alumax Pacific Corporation.

Mitigation

Drainage features such as culverts should be considered for this section, particularly since the area has been cleared and leveled and may be developed (without Alumax).

Stations 211+25 to 212+50

Probe hole number 69-126 at Station 211+90 indicates poor foundation material to about 13 feet b.l.s. Sands were then encountered that provide an adequate foundation.

Mitigation

A sand and/or common embankment material fill having maximum total height of about 10 feet will be deposited and compacted in proper increments.

A culvert pipe is planned for Station 212+00.

Stations 212+50 to 218+25

This cut section has a maximum depth of about 17 feet through clayey shale. The right side (west) of the right-of-way line drops off sharply.

Mitigation

The slope on the left side should be cut at no greater angle than 2:1 (2 feet horizontal to 1-foot vertical).

It would be prudent to check the right side drop-off area to determine the possible need for erosion control or stabilizing materials.

Stations 218+25 to 227+75

The section is underlain by unstable foundations soils to depths of 7 to 8 feet, capped by a spongy crust approximately 1 to 2 feet thick.

A small creek is crossed at Station 221+00, and the new approaches to Dolphin Road meet the alignment at Station 224+25. (The existing Dolphin Road is crossed at Station 222+00.)

Mitigation

The entire section, including the approaches to the Dolphin Road, will be stabilized with sand and/or common embankment material having a total maximum height of about 6 feet. A surcharge of about 3½ feet will be added to this. The spongy 1 to 2-foot-thick surface crust may first have to be removed in order to displace the underlying incompetent (unstable) material.

A culvert pipe will redirect and convey the small creek under the alignment at Station 221+12. Another culvert pipe is planned for Station 226+15.

Stations 227+75 to 229+75

This is a 200-foot long cut section having a maximum depth of about 10 feet.

Mitigation

No problems are anticipated. Standard design ratios of 3:1 or 4:1 for the slopes are adequate.

Stations 229+75 to 233+25

Probe hole 69-106 at Station 231+00 indicated unstable foundation material to a depth of about 6 feet.

Mitigation

The fill section will be stabilized with sand and/or rock material and surcharged with an additional 3½ feet of sand.

A culvert pipe is planned for Station 232+00.

Stations 233+25 to 235+50

This is a cut section having a maximum depth of 14 feet.

Mitigation

No problems are anticipated. A slope ratio of 2:1 or 3:1 is adequate.

Stations 235+50 to 249+00

This section is an extension of the boggy conditions present in the Station 218+25 to 227+75 and Station 229+75 to 233+25 sections.

The bridge structure across the Skipanon River is planned to extend between approximately Stations 241+75 to 243+45. A channel change, considerably straightening the river, is necessary here. The length of channel to be changed abuts the south boundary of the city of Warrenton. See the information on the Skipanon River Bridge foundation, which concludes this discussion of geologic hazard areas.

Mitigation

The fill sections on both sides of the bridge will be stabilized with sand and/or common embankment material to grade and will be surcharged with an additional 3½ feet of sand.

The soft banks beneath the bridge, as well as along the entire length of the channel change, should be protected to prevent erosion or slope failure. It is believed that, due to the slow channel velocity of 2 to 3 feet per second, seeding and mulching will afford sufficient protection. It would be prudent to place protective rock on the bank slopes beneath both ends of the bridge to prevent possible erosion.

Stations 249+00 to 269+50

Eleven probe holes along the section indicate unstable foundation soils to depths averaging about 5 feet.

The alignment crosses the Burlington Northern Railway tracks at Station 263+65. An additional highway stopping lane is provided on both

sides of the tracks in the crossing area, making a total of four lanes.

Mitigation

The entire section will be subexcavated and backfilled to grade with clean sand to a minimum of 2 feet above water surface. The excavated waste material will be placed along the right-of-way.

A culvert pipe will be placed on both sides of and parallel to the railroad tracks at Stations 263+30 to 264+00, respectively.

Stations 269+50 to 274+00

This is a cut section in sand, having a maximum height of about 9 feet.

Mitigation

No problems are anticipated. The slope ratio should be no steeper than 3:1 because the foundation soil is blow sand having no binding.

A culvert pipe is to be placed under the highway and the Ridge Road approach at Station 272+00.

Stations 274+00 to 295+00

A long but shallow fill is required to match grade with the Ridge Road (west side) and the Perkins Road (east side) approaches.

Mitigation

No foundation problems are foreseen for this sandy area.

A culvert pipe is to be placed north-south under the Ridge Road approach at the highway.

Stations 295+00 to 307+30

This section is to match grade with the Camp Rilea Road.

Mitigation

There are no foundation problems in this sandy area.

Stations 307+30 to 317+00

This is the south end, which tapers onto the existing highway.

Mitigation

There are no foundation problems in this sandy area.

Skipanon River Bridge Site

1. Preliminary plans call for a total of 18 prestressed concrete piles to be driven in compressible alluvial material to a minimum bearing capacity of 70 tons per pile.
2. The approach fills at both ends of the bridge will require surcharging because of the compressible soils. The 10- and 17-foot high fills at the north and south ends of the bridge, respectively, will be surcharged with about 3½ feet of material.
3. Because of the very slow streamflow velocity of 2 to 3 feet per second and a high water elevation of about 5 feet at the channel change site, it is believed that seeding and mulching will sufficiently protect the soft banks. It is suggested, however, that protective rock be considered for use beneath the bridge, where shade may prevent proper vegetative protection for the banks.
4. The safety of the bridge is assured by the standards developed by the American Association of State Highway and Transportation Officials, which are adhered to be the OSHD.

II. Soils

Table A-1 lists the engineering characteristics of the lowest of the three soils depths (to 60 inches) generally tested by the Soil Conservation Service of the soil associations in the project area. Figure A-1 is a boring log of the terrace alluvium in the Warrenton area.

TABLE A-1

CHARACTERISTICS OF SOIL ASSOCIATIONS IN PROJECT AREA

Number	Soils & Assocation	Texture	AASHTO Classi-fication	% Passing #200 Sieve	Liquid Limit	Plastic Index	Shrink-Swell Potential	Suitabil-ity for Roadfill	Local Roads & Streets	Erosion Hazard
(1)	Walluski-Knapp	Clay	A-7 (very poor)	90-95	50-60	10-15	High	Fair	Moderate limitations	Slight to moderate
(2)	Coquille-Tidal Marsh (fresh)-Clatsop	Silty clay	A-7 (very poor)	90-95	45-55	25-35	Moderate	Poor	Severe limitations	Slight
(3)	Westport-Gearhart-Dune Land	Fine sand	A-2 (fairly good)	20-35	Non-Plastic[1]	Non-Plastic[1]	Low	Poor	Moderate limitations	High

[1]Non-Plastic: Liquid or plastic limits cannot be determined, or plastic limit is equal to or higher than the liquid limit.

An explanation of the headings in Table A-1 and the impacts of the test data on road construction are as follows:

1. American Association of State Highway and Transportation Officials Classification.--This AASHTO classification rates soils on a scale of A-1 through A-7, with the lowest number indicating soils best suited for subgrades. Additional numbers are added to the basic classification for more definitive descriptions. Soils (1) and (2) are very poor, (3) is good.

2. Percent Passing Number 200 Sieve.--The significance of this test is that it determines the percentage of fine (clay and silt) and granular material. Soils (1) and (2) are very poor, (3) is fairly good.

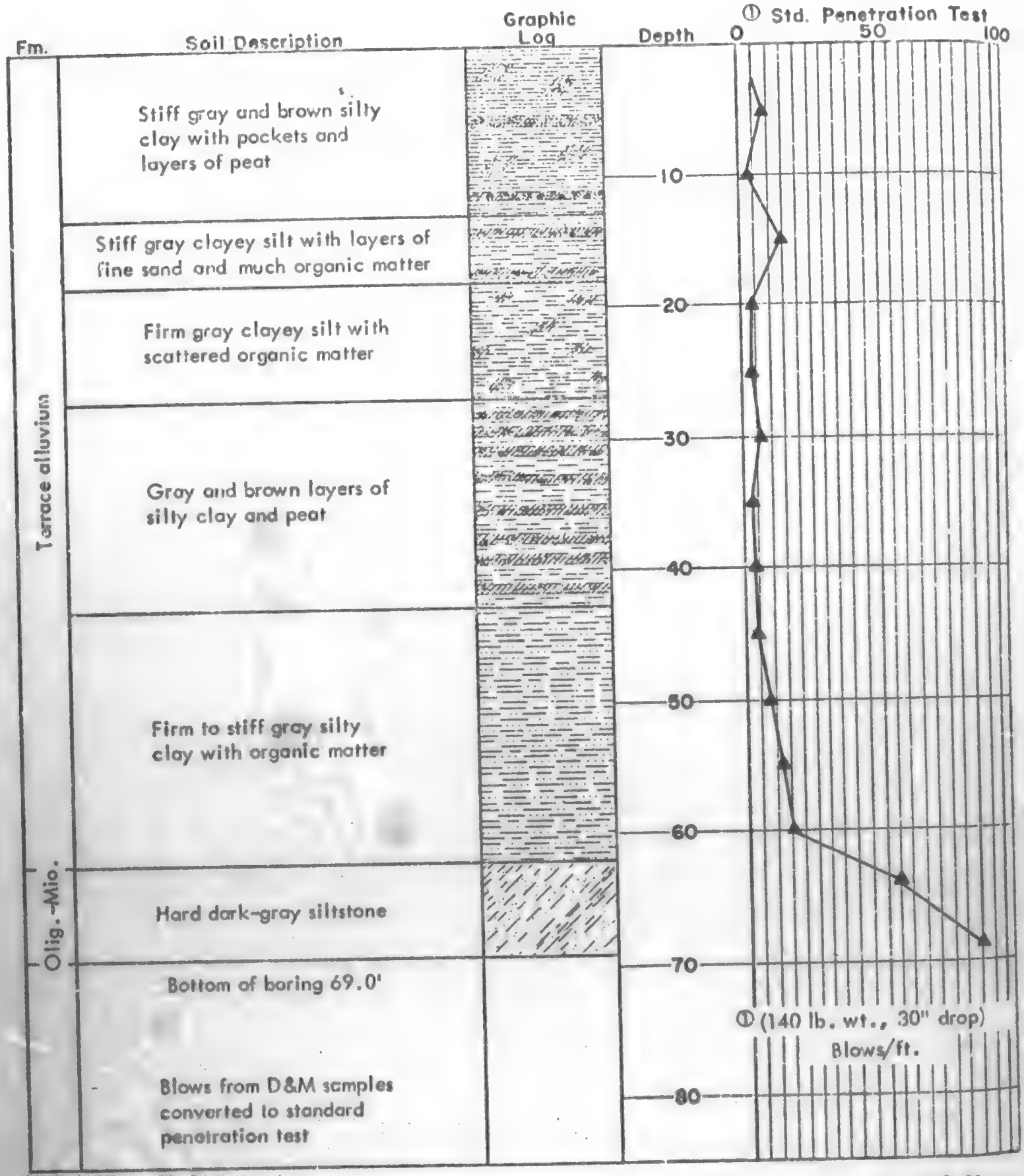
3. Liquid Limit.--This test determines the moisture content at which a soil passes from a plastic to a liquid state. The test is an index of cohesion in which the scale of 1 to 100 progressively indicates that the higher the clay content of the soil, the lower is its load-carrying capacity. Soils (1) and (2) are fair, (3) is non-plastic.

4. Plastic Index.--This test determines the range in moisture content at which a soil is in a plastic condition. A small index such as 5 shows that a small change in moisture content will change the soil from a semi-solid to a liquid condition. A large index such as 20 shows that considerable water can be added before the soil becomes liquid. Soil (1) has a narrow range, (2) has a wide range, and (3) is non-plastic.

Schlicker, et al., 1972, (Engineering Geologic Map of the Astoria Quadrangle) show peat underlying most of the project area (Figure A-1):

> Because sedimentation is commonly complex in such areas, silt and other material may cover deposits of peat. In regions of high water table, therefore, peat may occur in the sub-surface in areas where there is no direct surface indication of its presence (1972, p. 24).
>
> The peat has been exposed in only small areas, and it is likely that it is much more abundant and can be located only by adequate sub-surface investigations (1972, p. 72).
>
> Peat and organic soil are extremely compressible and generally considered entirely unsuitable for supporting structural foundations or earth embankments. In addition, the consolidation of peat and/or highly organic soils is not subject to the normal settlement analysis and the settlements tend to be highly differential and continue at a non-reduced rate over very long periods of time (1972, p. 72).

Figure A-1
BORING LOG OF TERRACE ALLUVIUM
WARRENTON AREA



North center, sec. 27, T. 8 N., R. 10 W.

Data from Dames & Moore

Source: Environmental Geology of the Coastal Region of Tillamook and Clatsop Counties, Oregon, Bulletin 74, 1972, State Department of Geology and Mineral Industries.

APPENDIX B

Material Sources

The Oregon State Highway Division has investigated four rock sources and two sand sources in the vicinity of the project. Data about those material sources and the environmental impacts of each were summarized in Table 3. Data on these sources were furnished by Lloyd Woolfe and/or Gareld Inloes, Oregon State Highway Division; and Stan Ausmus, Department of Geology and Mineral Industries.

I. Rock Sources

A. Howard Johnson and Sons Quarry

1. Location--T.5N., R.10W., Sec. 4, SE¼ NE¼, three miles south of Seaside on east side of U.S. Highway 101.
2. Haul distance--about 12 miles north via Highway 101 to south end of project. Very short haul from quarry site to highway.
3. Rock type--well-fractured basalt.
4. Overburden--sedimentary cappings must be avoided.
5. Plant and stockpile site--established.
6. Quality--good for aggregate.
7. Quantity--adequate.
8. Ownership--private.
9. Reclamation--this quarry has been operating for years. Therefore, under the July 1, 1972 "grandfather" clause (ORS 517.770 and 517.775) of the Mined Land Reclamation Division of the State Department of Geology and Mineral Industries, nothing can be done to enforce rehabilitation of that portion mined prior to the above date or if the operator mines downward within these confines. If, however, he mines laterally from these confines, the new portion mined is subject to rehabilitation. The owner or leasor of the site is then responsible for rehabilitating that portion.

10. Impacts--further degradation will be caused to the terrain, further danger to highway travel will result from rock truck movement, and the rock will be irretrievably committed.

Note: This is the most probable rock source.

B. Barth Falls Quarry

1. Location--T.7N., R.8W., Sec. 28, SE¼ NW¼, 5 miles east of Olney on north side of State Highway 202.
2. Haul distance--roughly 17 miles to north end of project.
3. Rock type--well-fractured basalt.
4. Overburden--moderate.
5. Plant and stockpile site--adequate.
6. Quality--good for aggregate.
7. Quantity--adequate.
8. Ownership--private.
9. Reclamation--this quarry was operating prior to July 1, 1972 and is therefore exempt.
10. Impacts--further degradation to the terrain, increased danger to highway and bridge traffic by rock truck movement, and irretrievable commitment of rock.

C. Olson Prospect

1. Location--T.7N., R.9W., Sec. 29, SW¼, east of the Lewis and Clark River Road near Melville.
2. Haul distance--roughly 14 miles to both the north and south ends of the project.
3. Rock type--intrusive basalt.
4. Overburden--moderate.

5. Plant and stockpile site--adequate.
6. Quality--good for aggregate.
7. Quantity--adequate.
8. Ownership--state.
9. Reclamation--undetermined at this time. The state will take whatever measures are necessary.
10. Impacts--similar to "A" above.

D. Untested Prospects

1. Location--T.7N., R.10W., Sec. 35, and T.6N., R.10W., Sec. 2 and 11, pediment area east of Gearhart between Cullaby and Thompson Creeks.
2. Haul distance--variable distances of about a mile to Highway 101, then approximately six miles to south end of project.
3. Rock type--basalt.
4. Overburden--undetermined.
5. Plant and stockpile site--undetermined.
6. Quality--undetermined until access, dozer, core drilling, and laboratory analyses work are performed.
7. Quantity--undetermined, but the foot prospecting performed showed that the basalt outcrops warrant further investigation.
8. Ownership--private.
9. Reclamation--undetermined, but the entire area would be subject to laws of the State Mined Land Reclamation Division.
10. Impacts--largely undetermined except for truck danger to highway traffic and irretrievable commitment of the rock resource.

II. Sand Sources

A. Warrenton Sand Pit

1. Location--T.8N., R.10W., Sec. 21, SW¼ SW¼, in city of Warrenton, south side of S.W. 9th Street and about one-half mile west of Main Avenue, on northern extension of Ocean View Cemetery sand ridge.
2. Haul distance--about two miles to north end of project.
3. Rock type--dune sand.
4. Overburden--negligible.
5. Plant and stockpile site--adequate.
6. Quality--undetermined.
7. Quantity--City of Astoria wants about 300,000 cubic yards removed.
8. Ownership--City of Astoria.
9. Reclamation--unresolved, as the issue is in controversy between the City of Astoria and the Mined Land Reclamation Division. The former claims it is conducting on-site construction by expanding the cemetery and, therefore, is exempt from reclamation work. The Mined Land Reclamation Division claims the City has conducted a commercial sand operation and--with the Astoria City Council now asking a royalty from the State for use of this sand--is obligated to undertake reclamation measures. The problem is unresolved at present. There is no problem between the Astoria City Council and the OSHD.
10. Impacts--the esthetic aspects would temporarily be degraded until fast-growing vegetation takes over, and the sand would be irretrievably committed.

B. Tagg Sand Pit

1. Location--T.7N., R.10W., Sec. 3, SW¼ SW¼, near south end of project on east side of Highway 101, 0.7 mile south of Camp Rilea Road.
2. Haul distance--about one mile to south end of project.
3. Rock type--dune sand.
4. Overburden--negligible.
5. Plant and stockpile site--established.
6. Quality--tested excellent for road use.
7. Quantity--adequate.
8. Ownership--private (Harold Tagg leases to Sunset Crushed Rock Company).
9. Reclamation--sand site is subject to full reclamation plans.
10. Impacts--principal impact is the irretrievable commitment of the sand resource.

APPENDIX C

Natural Habitat

I. An Overview of Change in the Natural Environment

It would appear useful to present a framework in which potential habitat impacts would occur and in which minimizing or mitigating measures must be judged. Figure C-1 attempts to illustrate the important forces which are acting to change the environment at the present time, as well as those which could be expected to occur, depending upon the choice of project alternative implemented. As indicated, nature is not static but always dynamic even though the pace of change may be slow and imperceptible to the human senses. The ongoing natural processes of filling and accumulation of vegetable matter tend toward drier site conditions. Shrubs, and later, trees will invade wetlands or marshy areas and form woodlands. Humans, desiring to control nature, have implemented swamp drainage and flood control measures which have tended to accelerate this drying process. However, the activities of certain animal species--in particular, beaver, deer, elk, cattle, and mice--tend to retard drying. Social forces (residential and commercial development and highway construction) are capable of changing an environment much more rapidly than are natural forces.

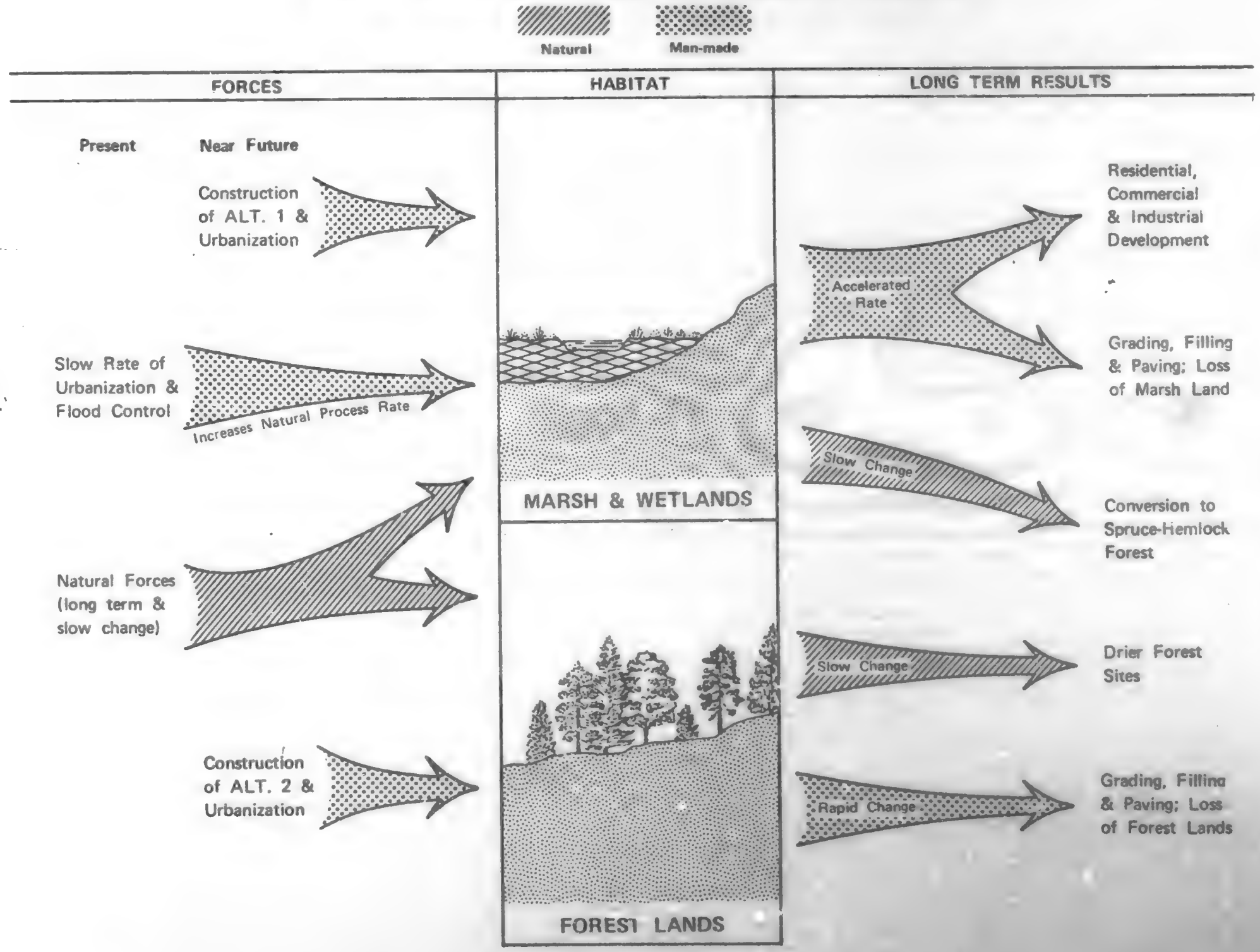
II. Vegetation of the Astoria-Camp Rilea Study Area

SPECIES	SITE	IMPORTANCE
Sitka Spruce (*Picea sitchensis*)	Wetlands & Uplands	Major/Co-dominant
Western Hemlock (*Tsuga heterophylla*)	Wetlands & Uplands	Major/Dominant
Lodgepole Pine (*Pinus contorta*)	Residential Areas	Minor
Red Alder (*Alnus rubra*)	Wetland & Upland	Major/Dominant
Hooker Willow (*Salix hooceriana*)	High Shrub Swamp	Major/Dominant
Mackenzie Willow (*S. Mackenziana*)	High Shrub Swamp	Major/Dominant
Red Elderberry (*Sambucus callicarpa*)	Woodlands	Moderate
Salmonberry (*Rubus spectabilis*)	Disturbed Sites	Moderate

Thimbleberry (R. parviflorus)	Disturbed Sites	Moderate
Trailing Blackberry (R. ursinus)	Road Fills	Minor
Cutleaf Blackberry (R. laciniatus)	Road Fills	Minor
Foxglove (Digitalis purpurea)	Road Cuts	Moderate
Fireweed (Epilobium angustifolium)	Road Cuts & Disturbed Sites	Minor
Pigweed (Amaranthus retroflexus)	Roadside	Minor
Bull Thistle (Cirsium vulgare)	Roadside	Minor
Scotchbroom (Cytisus scoparius)	Road Cuts	Moderate
Wild Carrot (Daucus carota)	Roadside	Minor
Redtop (Agrostis spp.)	Road Fills	Minor
Healall (Prunella vulgaris)	Woodland	Minor
Prairie Scouring Rush (Equesitum hyemale)	Road Fill	Moderate
Swamp Scouring Rush (E. fluviatile)	Road Fill	Moderate
Sweetgale (Myrica gale)	Low Shrub Swamp	Moderate
Douglas Spirea (Spirea douglasii)	Low Shrub Swamp	Dominant
Lady Fern (Athyrium filix-femina)	Wet Fill Slopes	Dominant
Cow Parsnip (Heracleum lanatum)	Low Shrub Swamp	Minor
Wild Strawberry (Fragaria spp.)	Roadside	Minor
Reed Canary-Grass (Phalaris arundinacea)	Aquatic Transition Zones	Moderate
Common Reed (Phragmites phragmites)	Aquatic Transition Zones	Minor/Dominant*
Orchard Grass (Dactylis glomerata)	Roadside	Minor
Wild Gourd (Marah oreganus)	Roadside	Minor
Twinberry (Lonicera involucrata)	High Shrub Swamp	Major/Co-dominant
Slough Sedge (Carex obnupta)	Aquatic Transition Zones	Minor
Cattail (Typha spp.)	Aquatic Transition Zones	Minor
Bulrush (Scirpus)	Aquatic Transition Zones	Minor

*An importance rating such as minor/dominant indicates the plant has limited areal occurrences but is dominant where it occurs. A major/dominant or co-dominant occurs over a large area.

Figure C-1
CHANGE FORCES ON NATURAL ENVIRONMENTAL HABITATS



III. Clatsop County Species List (Data source: Oregon Wildlife Commission, 1974).

Black-tailed Deer (Odocoileus hemionus)
Roosevelt Elk (Cervus canadensis)
White-tailed Deer (Odocoileus virginianus leucurus)
Black Bear (Ursus americanus)
Mountain Lion (Felis concolor)
Beaver (Castor canadensis)
Muskrat (Ondatra zibethica)
River Otter (Lutra canadensis)
Mink (Mustela vison)
Coyote (Canis latrans)
Bobcat (Lynx rufus)
Raccoon (Procyon lotor)
Spotted Skunk (Spilogale putorius)
Striped Skunk (Mephitis mephitis)
Long-tailed Weasel (Mustela frenata)
Short-tailed Weasel (Mustela ermina)
California Ground Squirrel (Citellus beecheyi)
Townsend Chipmunk (Eutamias townsendi)
Chickaree (Tamiasciurus douglasii)
Northern Flying Squirrel (Glaucomys sabrinus)
Bushy-tailed Woodrat (Neotoma cinerea)
Brush Rabbit (Sylvilagus bachmani)
Snowshow Hare (Lepus americanus)
Mountain Beaver (Aplodontia rufa)
Snow Goose (Chen hyperborea)
Balck Brant (Branta nigricans)
Mallard (Anas platyrhynchos)
Gadwall (A. strepera)
Pintail (A. acuta)
Green-winged Teal (A. carolinensis)
Cinnamon Teal (A. cyanoptera)
Baldpate (Mareca americana)
Shoveler (Spatula clypeata)
Opposum (Didelphis marsupialis)
California Quail (Lophortyx californicus)
Mountain Quail (Oreortyx pictus)
Ring-necked Pheasant (Phasianus colchicus)
Blue Grouse (Dendragapus obscurus)
Ruffed Grouse (Bonasa umbellus)
Mourning Dove (Zenaidura macroura)
Band-tailed Pigeon (Columba fasciata)
Sharp-shinned Hawk (Accipiter striatus)
Cooper's Hawk (A. cooperii)
Bald Eagle (Haliaeetus leucocephalus)
Marsh Hawk (Circus cyaneus)
Peregrine Falcon (Falco peregrinus)
Pigeon Hawk (F. columbarius)
Sparrow Hawk (F. sparverius)
Screech Owl (Otus asio)
Great Horned Owl (Bubo virginianus)
Pygmy Owl (Glaucidium gnoma)
Long-eared Owl (Asio otus)
Saw-whet Owl (Aegolius acadicus)
Barn Owl (Tyto alba)
Turkey Vulture (Cathartes aura)
Whistling Swan (Olor columbianus)
Canada Goose (Branta canadensis)
Whitefront Goose (Anser albifrons)
Bewick's Wren (Thryomanes bewickii)
Red-breasted Nuthatch (Sitta canadensis)
White-breasted Nuthatch (S. carolinensis)
Brown Creeper (Certhia familiaris)
Meadowlark (Eremophila alpestris)
Red-tailed Hawk (Buteo jamaicensis)

Wood Duck (Aix sponsa)
Redhead (Aythya americana)
Canvasback (A. valisineria)
Ruddy Duck (Oxyura jamaicensis)
Common Merganser (Mergus merganser)
Hooded Merganser (Lophodytes cucullatus)
Coot (Fulica americana)
Common Snipe (Capella gallinago)
Great Blue Heron (Ardea Herodia)
Hairy Woodpecker (Dendrocopos villosus)
Downy Woodpecker (D. pubescens)
Lewis' Woodpecker (Ansyndesmus lewis)
Flicker (Colaptes cafer)
Williamson Sapsucker (Sphyrapicus thyroideus)
Western Bluebird (Sialia mesicana)
Tree Swallow (Iridoprocne bicolor)
Violet-green Swallow (Tachycineta thalassina)
Purple Martin (Progne subis)
House Wren (Troglodytes aedon)
Northwestern Toad (Bufo boreas)
Northwestern Salamander (Ambystoma gracile)
Long-toed Salamander (A. macrodactylum)
Pacific Giant Salamander (Dicamptodon ensatus)
Olympic Salamander (Ryhacotriton olympicus)
Oregon Newt (Taricha granulosa)
Black Salamander (Aneides flavipunctatus)

Short-eared Owl (Asio flammeus)
Raven (Corvus corax)
Western Crow (C. caurinus)
Kingfisher (Megaceryle alcyon)
Bittern (Botaurus lentiginosus)
Dipper (Cinclus mexicanus)
Robin (Turdus migratorius)
Oregon Junco (Junco oreganus)
Bank Swallow (Riparia riparia)
Cliff Swallow (Petrochelidon pyrrhonota)
Brewer's Blackbird (Euphagus cyanocephalus)
Red-winged Blackbird (Agelaius phoeniceus)
Brown-headed Cowbird (Molothrus ater)
Rufus Towhee (Pipilo erythropthalmus)
Starling (Sturnus vulgaris)
Brandt's Cormorant (Phalacrocorax penicillatus)
Pacific Pond Turtle (Clemmys marmorata)
Garter Snake (Thamnophis spp.)
Alligator Lizard (Gerrhonotus coeruleus)
Oregon Red-legged Frog (Rana aurora)
Bullfrog (R. catesbeiana)

IV. Estimated Wildlife Population and Habitat Status for Selected Species of Clatsop County, Oregon

Species	Estimated Population & % of State	Ecol. Density Per 100 Acres Regional/Statewide	Amount of Habitat & % of State
Roosevelt Elk	13,200/34.6	3.4/0.27	390,400/2.6
Black-tailed Deer	30,131/4.6	6.8/3.5	442,240/2.3
White-tailed Deer	100/2.5	1.6/0.18	6,400/0.2
Black Bear	1,600/6.4	0.4/0.09	409,600/1.5
Mountain Lion	500/13.2	0.2/0.01	221,120/0.7
Beaver	2,631/2.1	3.4/2.21	76,800/1.4
Muskrat	4,482/3.6	25/14.18	17,920/2.0
River Otter	310/4.4	0.4/0.22	76,800/2.7
Mink	602/1.2	0.8/0.7	76,800/1.2
Coyote	4,600/2.4	1.0/0.34	442,240/0.8
Bobcat	2,650/4.5	0.6/0.12	442,240/1.0
Valley Quail	200/--	1.0/7.42	20,480/0.2
Mountain Quail	1,600/0.4	1.4/2.22	118,000/0.7
Ring-necked Pheasant	500/0.1	2.4/8.34	20,480/0.3
Blue Grouse	3,750/0.7	1.1/2.70	342,000/1.6
Ruffed Grouse	1,800/0.6	1.3/2.44	142,200/1.1
Mourning Dove	80/--	0.8/11.27	9,600/--
Band-tailed Pigeon	6,000/1.0	1.4/4.07	432,240/2.9
Bald Eagle	70/5.2	0.1/0.01	76,800/0.3
Osprey	10/0.9	--/0.03	67,200/1.8
Peregrine Falcon	60/23.8	0.3/0.01	19,200/0.3
Screech Owl	1,100/1.4	0.6/0.3	189,120/0.8
Great Horned Owl	1,800/2.8	0.5/0.18	378,240/1.1
Barn Owl	80/0.3	0.9/0.29	8,600/0.1
Canada Goose	2,500/5.9	10.6/1.22	23,581/0.7
Hooded Merganser	315/5.2	3.1/0.16	10,200/0.3
Common Merganser	1,100/4.1	3.3/0.74	33,757/1.0
Whistling Swan	950/5.0	4.0/0.6	23,581/0.7
Wood Duck	310/0.6	0.4/0.22	76,800/2.9
Mallard	3,820/2.4	15.3/3.59	25,024/0.6

Notes: Data are from the Oregon Department of Fish and Wildlife Data Catalog (advance copy). Population estimates are from 1970. "Ecological Density" is the number of individuals of a species per area of suitable habitat (i.e., individuals per 100 ac.) Scientific nomenclautre appears in the previous wildlife species list.

V. Notes on Wildlife Losses Methodology of Table 6

To estimate the short- and long-term wildlife losses, first, regional ecological densities were calculated. The ecological density for a species is the number of individuals of a species per area of suitable habitat (100-acre unit). Population estimates are from 1970 data. The ecological densities of wildlife in the region (Clatsop County) are listed in this appendix, part IV. Acreages given include the segments common to both alternatives. Because the actual wildlife use of the study area is not well known, a loss of habitat which is considered suited to the needs of a species has been shown as a loss for that species.

Short-term habitat losses would occur on those lands which would be temporarily made unsuitable for a species, but which are expected to be of some value to that species, generally from zero to fifteen years (time frame is arbitrarily selected). Short-intermediate losses for each species is calculated as follows:

Ecological Density
x
Area Affected
x
Shortest Estimated Time Required to Return to a Useful State

Long-term habitat losses include all of the area which would be hard-surfaced (minus that which is presently hard-surfaced), plus areas which would not be hard-surfaced but which would no longer be suited for a particular species. Long-term loss is calculated thus:

Ecological Density
x
Area Affected
x
100 Years

Species upon which this and other tables are based may or may not be using the area in question to a significant degree. But where habitat which is considered suitable for a species exists in the impact area and this habitat is expected to become unsuited for that species, a loss, either actual or potential, will have occurred.

Table 6 uses selected species of wildlife for which population and habitat data exist. The selection of species for this table is not meant to imply a particular significance to this limited list, nor that losses will be sustained only by these species. A more complete listing of species in the region is contained in part III of this appendix.

The source of the raw data is the Oregon Department of Fish and Wildlife Data Catalog (advance copy).

APPENDIX D

Historical and Archaeological Report

The discovery of the Columbia River by Captain Gray on May 11,1792, marked the beginning of the United States claim to the Oregon Territory. In 1805 the Lewis and Clark Expedition arrived in this area and built Fort Clatsop on the banks of what is now known as the Lewis and Clark River. There they encamped for the winter of 1805-1806. Astoria is the site of the first commercial settlement of Americans on the Pacific Coast. A group of fur traders aboard the ship "Tonquin" arrived in Astoria in 1811, building Fort Astoria.

When the first settler arrived, some thirty-six tribes of the Chinook nation dwelt along the south shore of the Columbia River and controlled the territory from the Cascades to the sea. Chief Concomly ruled the confederacy of tribes except for the Clatsops, which Chief Coboway ruled independently. Coboway's lodge was located at the Fort Stevens site and his people, numbering approximately two hundred, ranged the plains between Astoria and Gearhart. Lewis and Clark, who called him Comowool, presented him with Fort Clatsop in 1806 when they departed from Oregon.

The cultures of these native Americans were based primarily on salmon fishing. They travelled mostly by canoe and were expert in canoe construction, generally using cedar, sometimes spruce and fir. Indians of the lower Columbia lived in wood houses, usually with several families in each dwelling. The relative permanence of these settlements and clustering of inhabitants promoted the use of kitchen middens or shell mounds, which are found in Oregon's coastal counties. Ranging in area from ten to twenty acres and in depth from twenty to thirty feet, varying levels or strata of the mounds indicate successive occupations of the locality. Archaeological finds include pottery, mortars, pestles, bake ovens, arrow and spear heads, smoking pipes, mauls, wood-splitting wedges, basalt, slab digging tools, knives and arrow shaft straighteners made of stone.

None of the Indian dwellings still exists in the area, due primarily to floods of 1861 and 1894, but numerous middens have survived to assist in the study of Indian culture of various historical periods.

Fort Clatsop, the site of Lewis' and Clark's winter encampment, is located approximately two and one-half miles east of the project area. (See Figure 9 for the location of the historical sites discussed herein.) None of the original buildings have survived, but a replica of the fort was built in 1955 to mark the observance of the Lewis and Clark Sesquicentennial. The historic site, now a National Monument in the National Park System, was authorized by Congress in 1958. Fort Clatsop is listed in the National Register of Historic Places. Within twenty-five miles of Fort Clatsop are several sites described in the Lewis and Clark journals. These include the salt cairn at Seaside, the trail over Tillamook Head to Cannon Beach, and in the state of Washington, the camp and trail sites at McGowan, Cape Disappointment and Long Beach.

Astoria, Oregon's oldest city, contains several historic properties listed in the National Register. Those in the Register include the Samuel Elmore Cannery, the oldest, continuously operated salmon cannery in the United States; Fort Astoria, an 1811 site with a reconstructed blockhouse; and the 125-foot Astoria Column with spiral frieze depicting pioneer history. The Flavel House, a Victorian mansion reminiscent of Astoria's early history and former home of pioneer Captain George Flavel, now Clatsop County Historical Museum, is located on 8th Street between Duane and Exchange Streets. (This property is listed in the Statewide Inventory of Historic Sites and Buildings and is eligible for nomination to the National Register.

The city of Warrenton was founded in 1870, platted in 1891, and incorporated in 1899. The first settlement was known as Lexington and was established in 1848 near the south city limits of Warrenton where it is today. Later the

landing known as Skipanon was established about where the center of Warrenton is now. The "Skipanon" is still in use in the area to describe the river, waterway, slough, and railroad station, but the town has continued to encompass this entire area under the name "Warrenton." (The Skipanon River was referred to as "Skipanarwin Creek" on the charts of Lewis and Clark.)

The Clatsop County Historical Advisory Committee has identified two sites of local significance near the project area and is having granite markers prepared for placement at these sites. The first site is on the existing roadway south of the Skipanon River Bridge. This was the location of Lexington, the first county seat under Oregon Territorial Government, serving in official capacity during the late 1840's. On September 2, 1850, the first court session was held in the building then used for the town hall. The county seat was moved to Astoria in 1851, and all official buildings at that location have long since been removed. This site marker will be of considerable importance to the history of Clatsop County and will necessitate coordination with county officials and the historical advisory committee in regard to placement, visibility and access.

Another marker will be placed at the site of the Solomon Smith house on the west side of Smith Lake. The house was built about 1840, but is no longer in existence. Since the location is west of the highway and on the opposite side of the lake, it would be unaffected by this project.

The Erik Lindgren Log House, now located in Cullaby Lake County Park, is a rare example of authentic Finnish construction. The dwelling is the only remaining structure of six built by Lindgren between 1910 and 1928 on his homestead in the Soapstone Creek area. Because of its unusual architectural and structural detail, this property is now being considered for National Register listing. The Cullaby Lake Park location is far enough away not to be affected by the proposed project.

Adjacent to the south end of the project on the west side is the Clatsop Plains Pioneer Presbyterian Church and Cemetery. The church organization dates back to September 19, 1846, and a building was constructed in 1850 but was destroyed by a wind storm in 1853. The present church, a picturesque brick structure, was built in 1927 on the same site and incorporated the original altar, made from a cedar log found on the beach. The church bell from the 1850 belfry was also preserved and is mounted on an inscribed pedestal in the church yard. Technically, the church is named the Gray Memorial Chapel honoring William H. Gray, pioneer missionary and compatriot of Marcus Whitman with whom he travelled west in the first mission party. The congregation is reputed to be the oldest continuing Presbyterian Church west of the Rockies.

The cemetery behind the church contains graves of many early pioneers, including Solomon Smith and his wife Celiast, daughter of Clatsop Chief Coboway. The couple were married by Reverend Jason Lee, another well known figure from Oregon history. Smith was the first pioneer schoolteacher and an organizer of the Clatsop Plains Church. Celiast was influential in maintaining peace between the settlers and her father's tribe, according to historians.

With these ties to much of Oregon's earliest pioneer history, the Clatsop Plains Church must be considered as having definite potential for National Register listing. It is currently on the Statewide Inventory of Historic Sites

and Buildings compiled by the State Historic Preservation Office. Additional factors influencing the eligibility of this church for the National Register are the original site and the setting. The present church is an excellent subject for photography.

The Astoria area, being located at the mouth of the Columbia River, is in a prime coastal defense position. Therefore, it has had considerable military significance. Fort Stevens, along with Forts Columbia and Canby in Washington, were built to guard the mouth of the Columbia River. The batteries of Fort Stevens, established in 1863, are now contained in Fort Stevens State Park, located approximately two miles northwest of the project.

Atop a ridge about one-half mile east of the highway and south of Cullaby Lake reservoir is a fire control tower over eighty feet high, erected in 1920 by the U.S. Army as a base end station for use by Fort Stevens troops. This tower, referred to as Station X, was used in conjunction with Fort Canby and Fort Columbia on the Washington side of the river. These two installations, along with Fort Stevens, performed a major function for the harbor defense fire control system. Azimuth instruments were installed in the structure in order to plot locations by triangulation with the other stations. Range to target could then be transmitted to coast artillery installations if defense of the Columbia became necessary. In the 1930's, additional ground was purchased; the building was extended; and a power plant was installed. The tower was in use during June, 1942, when Fort Stevens was shelled by a Japanese submarine, the only known such incident in the continental United States during World War II. Since that time the tower has been vacant, and although the concrete piers are intact, the wooden structure has deteriorated.

Currently the tower is owned by Clatsop County, and preservation has been discussed by the Clatsop County Historical Advisory Committee. The State

Parks Branch of the Oregon State Highway Division has indicated an interest in developing the tower as a feature of the Fort Stevens Military Reservation Project. Due to this interest, the connections with Oregon's military history, and the fact that it is the highest structure of its kind ever built in Oregon, the tower must be considered likely to be eligible for National Register nomination.

Another chapter of the military history of Oregon is represented by Camp Rilea, located adjacent to the southern end of the project. This camp, consisting of approximately 1,264 acres, was first used by the Oregon National Guard in 1927 and has continued as a training site for selected units since that time. Originally called Camp Clatsop, the reservation was renamed in honor of Major General Thomas E. Rilea, the Adjutant General of Oregon from 1941 to 1959. This site is not now being considered for National Register nomination.

APPENDIX E

The Economy of Clatsop County

The economy of Clatsop County historically has been heavily dependent upon the natural resources of the region. The forest products industry, the commercial fishing and fish processing industries, and the travel industry constitute about half the direct dollar value of the economy and about 35 percent of the employment. Other important basic sectors of the economy include agriculture and food processing, water transportation (including the Port of Astoria), Federal and state government and retirement.

There are two major non-basic industries in Clatsop County: (1) local government and (2) trade and services.

Forest Products. Commercial forest land covers about ninety percent of Clatsop County. Most of the forest land is owned by private firms, with Crown Zellerbach Corporation owning 164,000 acres, or about one-third the total land area. Other large private owners include Boise-Cascade Corporation and Longview Fiber Corporation. The State of Oregon administers about 147,000 acres. There is virtually no forest land under Federal ownership.

Timber was cut at a very high rate from 1920 to 1950. During the fifties and sixties output dropped because of the lack of available supplies of timber. The sustained yield method of timber management is beginning to result in a constant supply for the future and annual harvests will level off around 320 million board feet (Scribner Rule). Much of the variation in output will depend upon changes in demand. It is expected that the overall value of the forest products industry will increase substantially. Because of the anticipated increases in productivity, projected employment increases are not as large as would be expected. In other words, part of the additional output will come from increased productivity and the remainder from the increased amount of workers, machinery and raw materials.

Commercial Fishing and Fish Processing. The value of this sector represents about sixteen percent of the total value of the economy of this county. This industry employs about eleven percent of the total work force. In terms of both weight and value, about one-half of all fish landings in the state occur at Astoria. Within the area is concentrated one of the largest skilled laborer forces in this industry within the Pacific Northwest. In contrast to other coastal counties, the largest cash crop is tuna, with salmon ranking a distant second.

The future of this industry is largely dependent upon the availability of fish resource. If supplies remain abundant, output and employment in this industry can be expected to remain constant or to increase slightly.

Travel Industry. The travel industry is one of the most difficult sectors to measure. It is generally acknowledged to be one of the largest sectors of the economy. Several studies have been made to determine the precise importance of this industry to the regional economy. Three recent studies have been utilized for this analysis.[1]

One study estimated that, for 1972, expenditures in the travel industry for both Clatsop and Tillamook counties were about $53 million. Employment for Clatsop County's travel industry increased from 196 in 1958 to 537 in 1973, an annual average growth rate of 6.7 percent.

There are several important characteristics of this industry. First, there is considerable variation in the level of activity within a year; 1973 employment rose from 266 in the first quarter to 868 in the third quarter.

[1]Oregon Coastal Conservation and Development Commission, Economic Analysis and Profile of the Oregon Coastal Zone, 1974; Oregon State University, An Economic Analysis of Resource Allocation in the Oregon State Highway Division, 1972; and Battelle Laboratories, The Impact of Travel on the Oregon Economy and Visitor Use of Tourist Serving Facilities; 1973.

Secondly, only about a third of all visitors used hotels or motels; a larger percentage of overnight visitiors use the campgrounds, particularly state parks. In the 1973-74 season, Fort Stevens State Park had 169,678 overnight visitors, more than any other state park in Oregon.

Another indicator of these changes in the travel industry is the decline in the number of second homes: in 1960 there were 1418 in the county; by 1970 the number had declined to 1027. This gives further support to the hypothesis that camping is becoming more prevalent in the county. It should also be noted that because of the availability and use of campgrounds, expenditure per visitor is lower than in a state such as Hawaii, which has a much higher proportion of hotel and motel trade. Wage levels in the travel industry also are lower than average, primarily because of the types of occupations in this industry.

Barring a severe shortage of gasoline, there should be an increase in activity levels in this industry. There are also indications that there will be less variability in future employment for this industry.

Agriculture and Food Processing. This sector is quite small, representing less than one percent of the total direct value of the economy of the county and about 2½ percent of the labor force as of 1970. Dairying and pasturage are the two largest farm activities. This industry has declined in importance largely because of a fifty-seven percent decline in farmland from 1959 to 1969. This farmland was converted to residential or other uses. The farms now average 92 acres.

Climate and soil limitations inhibit the expansion of agricultural activity in Clatsop County. Only sixteen percent of the land is in soil classes I-IV, suitable for agriculture. For these reasons, it is expected that this sector will not grow in employment or output.

Water Transportation and the Port of Astoria. Being situated at the mouth of the Columbia River and having a port at Astoria, Clatsop County has a distinct advantage in location. Measured in terms of employment, water transportation is one of the more rapidly growing sectors of the economy. The 1958 level of employment of 86 grew to 225 in 1973, an annual growth rate of 7.6 percent. At the Port of Astoria, total shipping activity went from 490,000 short tons in 1958 to 1,922,000 short tons in 1972, an annual growth rate of 11.7 percent. Chief exports from the port are lumber and wood products and wheat products from the hinterland. Water-related activities are expected to increase at the port as ships become larger and are unable to go up the Columbia. However, it is not expected that the level of activity will reach or surpass that of the Port of Portland, which has a distinct locational advantage by being on the Willamette River and having a more diversified labor force than Astoria.

Federal and State Government. The level of activity of state and Federal government in Clatsop County is largely dependent upon political decisions rather than economic ones. Federal employment in the County declined from 617 in 1958 to 110 in 1973; this has been offset by a substantial growth in state government employment from 96 to 574 during the same time period.

Retirement. As life expectancy increases, workers retire earlier and retirement incomes increase, the retirement sector becomes more important for an area such as Clatsop County. Retirees are attracted to the natural beauty and serenity of the various communities. The average (in this case, median) age of Clatsop County's population is older than the statewide average. In 1960, the county median was fourteen percent older than the state median, while in 1970, the county median was fifteen percent older than the state median. Another indicator is the number of social security recipients receiving

retirement benefits; this number went from 3089 in 1960 to 4293 in 1972, an annual increase of 2.5 percent, considerably larger than the annual overall population increase of 1.7 percent during the same time period. Benefits from social security to residents of the county totaled more than $6.3 million during 1972.

Local Government. (Local government and trades and services are the principal non-basic sectors in the region.) Local governmental activity has increased substantially in recent years. Since 1965, employment in this category has increased from eight percent to thirteen percent of total employment. With an increasing share of intergovernmental transfers (such as revenue-sharing) going to local government and with additional government functions, this sector is expected to continue to grow.

Trades and Services. The growth in trades and services is not as dramatic as the growth in local government. Employment grew from 3026 in 1958 to 4097 in 1972 an annual rate of growth of 2.7 percent. As the forest products and travel industries grow, this sector of the economy (upon which growth in trades and services depend) should also continue to grow.

APPENDIX F

Net Social Benefits and Methodology Use in the Benefit-Cost and Rate-of-Return Analysis

I. Net Social Benefits

Among the more important impacts discussed earlier in this report are the impacts on the road user, considered in the benefit-cost/rate-of-return analysis, and the losses in wildlife habitat and aquatic life (discussed in the sections on terrestrial and wildlife habitats and water quality).

These impacts result in both benefits and costs to society. While the impacts to the road user are considerably different from the impacts to the non-user, there is a technique whereby they can be compared. These benefits and costs to society, called social benefits and social costs, can be considered together to obtain the difference between them. The difference between social benefits and social costs (i.e., social benefits less social costs) is called net social benefits. Net social benefits can be either negative or positive.

One user of this approach calls this the "planning balance sheet." This technique is "an evaluation of alternate plans which should be able to demonstrate how the relevant operations demands of each individual or group have been taken into account."[1]

From this definition, it can be seen that interested groups must be identified. For our purposes, there are two major groups; road users and conservationists. While this distinction of interested parties is artificial and does not address specifically such groups as landowners, tax payers, etc., it is useful to demonstrate who received these benefits and costs.

The road user group, it is assumed, has strong preferences for efficient, low-cost transportation system. In this region, for example, two

[1]Litchfield, Nathaniel, and Honor Chapman, "Cost Benefit Analysis in Urban Expansion: A Case Study, Ipswich," Urban Studies, VII (1970), p.158.

important subgroups are trucking firms, whose costs are reduced with a more efficient transportation system and the travel industry, which enjoys better business with a transportation facility which attracts more tourists.

The conservationist group consists of those who have a strong dedication to the preservation of the environment, particularly unique unspoiled natural areas and endangered plant and animal species. This includes various conservation organizations, such as the Sierra Club, as well as conservation oriented individuals unaffiliated with any organization.

The conservationists are usually interested in a slow rate of economic growth, while the road-user group often desires a relatively rapid growth.

A standard whereby these net social benefits can be analyzed is found in the guidelines of the Oregon Coastal Conservation and Development Commission's Regional Land Use Planning: Goals and Guidelines for the Coastal Zone. Their guidelines state that:

> State government and local units of government should prohibit agricultural, forestry and urban development practices which threaten significant aquatic life and wildlife habitats unless it is demonstrated that the net social benefits of alternative practices are less than the net social benefits of the practices that threaten signficiant aquatic life and wildlife habitats.[2]

This proposed guideline is particularly apropos, since the project is within the designated coastal zone.

The major social benefits of either build alternative accrue to road users. As described in the benefit-cost/rate-of-return analysis, the most favorable alternative is the new alignment (Alternative 1). This alternative has a benefit-cost ratio of 1.81, or a rate-of-return of 12.21%,

[2]Oregon Coastal Conservation and Development Commission, Draft Regional Land Use Planning Goals and Guidelines for the Coastal Zone (Salem: Land Conservation and Development Commission, State of Oregon, 1974) p. 6.

while the widening of the existing alignment (Alternative 2) has a benefit-cost ratio of 1.07 or a rate-of-return of 6.59%. A benefit-cost ratio greater than 1 (or equivalently, a rate of return figure greater than 6%) is better than the no-build. Hence, the road user analysis ranks the new alignment (Alternative 1) first, the widening of the existing alignment (Alternative 2) second and the no-build (Alternative 3) third. As noted in the discussion of safety, the new alignment is also the most favorable because the local traffic, especially traffic to the high school, would be separated from through traffic.[3]

The largest adverse impacts would occur with Alternative 1, the new alignment. It would traverse a relatively isolated, undeveloped and productive terrestrial habitat area. Much of the right-of-way area is in forest, bog, and wetlands. Clearing and grubbing of the construction area would result in immediate and major destruction of the habitat in the right-of-way corridor. This disturbance to the natural environment, including drainage system changes, would reduce the opportunities for indigenous plants and animals. Because many animal species require a minimum range area and freedom from disturbance, removal of land might be as effective as modification of all habitat in destroying the area for established animal communities. The crossing of the marsh would bring the sight, sound and smell of human activity closer to animals that live in this habitat. Land use development in the area would further preclude or reduce the use of the marshland by species requiring freedom from harassment.

The new alignment will also cause minor degradation of aquatic habitat in the Skipanon River and in the swamp land adjacent to the river. Aquatic

[3]Safety benefits are not calculated in the benefit-cost/rate-of-return analysis, since these benefits cannot be quantified in monetary terms.

losses include both anadromous fish and resident fish/shellfish, especially juvenile forms and a few estuarine species. However, no critical aquatic habitat will be impact by this alternative.

Alternative 2, improvement of the existing alignment, would result in less severe impacts on wildlife habitat than Alternative 1, since less natural habitat would be affected. For the most part, wildlife patterns in the habitat near the existing highway have already changed because of the disturbing effects of the existing highway. Nonetheless, further alteration to the corridor would decrease suitability and productivity of the habitat. Future development along this route would further decrease the already-limited suitable habitat.

This alternative would have impacts on aquatic life similar to those of Alternative 1, since a new bridge would have to be built on the Skipanon River, but the impacts would be less severe. The new bridge would be built next to the existing bridge, where many of the adverse impacts on aquatic life have already occurred.

Alternative 3, the no-build alternative, would have the least severe impacts on wildlife habitat and aquatic life. Wildlife habitats next to the existing highway have already been modified. Because no additional encroachment on existing wildlife habitats would be necessary, impacts with this alternative would be minor.

Impacts on aquatic life would be least with this alternative also. Although a new bridge would be required across the Skipanon River during the time period of the project[4], the impacts of this bridge replacement would be less than the impacts of the bridge replacement with either build alternative.

[4]That is, the life of the build alternatives.

Table F-1 summarizes the relative changes in net social benefits. No attempt has been made to calculate net social benefits, because there is no unambiguous way to compare the benefit-cost/rate-of-return figure to the losses in wildlife habitat and aquatic life. The benefit-cost/rate-of-return data are in monetary terms, and the losses in wildlife habitat and aquatic life are in number of animals, respectively. It is clear from the table that, from a road user point of view, Alternative 1 is the most

TABLE F-1

SUMMARY OF TRADE-OFFS TO OBTAIN NET SOCIAL BENEFITS

Alternative	Benefit-Cost/ Rate-of-Return	Loss of Wildlife Habitat and Aquatic Life	Net Social Benefits
1 (New Alignment)	Most favorable	Least favorable	Undetermined
2 (Widening)	More favorable	More favorable	Undetermined
3 (No Build)	Least favorable	Most favorable	Undetermined

advantageous because it has the highest benefit-cost/rate-of-return, yet also had the highest loss in wildlife habitat and aquatic life. Alternative 3 is the worst for the road user, yet is the best for wildlife habitat and aquatic life. For the road user group, Alternative 1 is the best alternative; for the conservationist group, Alternative 3 has the highest net social benefits.

Only the more important social costs and benefits of this project have been discussed, following one of the Oregon Coastal Conservation and Development Commission guidelines. Not all possible social benefits and costs

have been analyzed. It does appear, though, that other social costs and benefits, including aesthetic, cultural and recreational are minor compared to the impacts discussed herein.

II. Methodology Used in the Benefit-Cost/Rate-of-Return Study

The benefit-cost number is a ratio calculated by dividing benefits by costs. Benefits are the reduction (expressed in monetary terms) of time, mileage, maintenance and operating costs from one of the build alternatives. Costs are the construction costs of the build alternative. All values are put into one time period (often called the present value) by means of the discount rate. For example, if the discount rate is 8½ percent, $1.00 today will, in a year's time, be worth $0.9217. One dollar in two years time will be worth $0.8495 today; this is calculated from the term:

$$\frac{\$1.00}{(1 + 0.085)^2}$$

For the ith year, the following term would be used:

$$\frac{\$1.00}{(1 + 0.085)^i}$$

To obtain all the benefits of a project during a time period, the present value of each year would be added by the following equation:

$$(1) \quad \sum_{i=1}^{n} \frac{b_i}{(1+r)^i} = \frac{b_1}{1+r} + \ldots + \frac{b_j}{(1+r)^j} + \ldots + \frac{b_n}{(1+r)^n}$$

where b_i is the benefit in the ith year; i is the year; n is the total number of years and; r is the discount rate.

In the same way, costs are calculated by the following equation:

$$(2) \qquad \sum_{i+1}^{n} \frac{C_i}{(1+r)^i}$$

where C_i is the cost of the project in the ith year and all the other figures are the same as in equation (1).

The benefict-cost ratio is calculated by dividing equation (1) by equation (2).

One difficulty in this approach is calculating the discount rate; there is still a considerable amount of controversy as the the "correct" discount rate. The discount rate used here is 6 percent. To eliminate this problem, the rate-of-return method is used. By this method, benefits are set equal to costs and the rate-of-return is calculated. Using our formulas, equation (1) is set equal to equation (2) and r is calculated. In this case, r is the rate-of-return. As noted in the text, this rate-of-return can be compared to rates-of-return or profit rates on other investments, both public and private.

To calculate time, mileage, maintenance and operating costs, the following assumptions were used:

(1) Economic life of each alternative is 30 years;

(2) All costs are based on current values, and they will all change at the same rate;

(3) Average daily traffic (ADT), average running speeds and maintenance costs vary uniformly between the first and the thirtieth year;

(4) The composition, as to the type of vehicle, of the present ADT

will remain constant, and change of the ADT will be linear for the thirty years.

The following cost values were used:

Vehicle Type	Time Cost $/Hr.	Mileage Cost $/Mile
Passenger & Other Light Vehicles	$3	$0.085
Light Trucks	5	0.15
Heavy Trucks	6	0.20

The source for this information is the Oregon State Highway Division's Use of the Rate of Return for Evaluating Highway Projects.

Although a decision has not been made concerning the replacement of the bridge over Skipanon River of the Astoria-Warrenton Highway, for purposes of this analysis, it was assumed the bridge would be replaced. This bridge replacement is mentioned here, since the conclusions of this analysis would be different if the bridge indicated above were abandoned. Additional monies would have to be spent on the existing Oregon Coast Highway from its junction with the Fort Stevens Highway (No. 104) to Astoria, to provide a tolerable capacity, if the indicated bridge were abandoned and the new alignment were constructed. The capacity, during the economic life of the segment from the junction of the Fort Stevens Highway to the northerly end of the subject section, should be adequate if the indicated bridge were abandoned and the existing alignment were widened.

APPENDIX G

Relocation Assistance and Availability of Replacement Housing

I. The Relocation Assistance Program of the Oregon State Highway Division

The Uniform Relocation Assistance and Real Property Acquisition Act of 1970 insures the prompt and equitable relocation and re-establishment of persons, businesses, farms, and non-profit organizations displaced as a result of Federal or Federally-assisted programs.

Pertinent sections of the OSHD Relocation Assistance Program are summarized in this appendix. Specific questions about the program should be addressed to personnel from the Right-of-Way Section, Oregon State Highway Division.

Individual and Family Moving Expenses

Any individual or family displaced by the State Highway Division project is entitled to receive a payment for reasonable expenses of moving personal property up to a distance of 50 miles radius or to the nearest available and adequate site.

Only those individuals or families in occupancy at the start of negotiations for the property are eligible to receive this payment. Residential moving costs may be claimed according to a set schedule based upon the number of rooms of furniture to be moved or may be paid to a common carrier mover.

In addition to the moving payment based on a room count or mobile home square-foot area, a dislocation allowance of $200 will be paid.

TABLE G-1

PAYMENT SCHEDULE

Residential Moving Schedule

Unfurnished
(Relocatee owns furniture)

$ 60 (1 room)	$140 (3 room)	$220 (5 room)
$100 (2 room)	$180 (4 room)	$260 (6 room)

Seven or more rooms - $300

Furnished
(Relocatee does not own furniture)

Mobile Home Moving Schedule
(Based upon total floor area)

Amount of Payment	Square Foot Area
$100	Up to 200 square feet
$200	201 square feet-600 square feet
$300	More than 600 square feet

In addition to the moving payment based on a room count or mobile home square-foot area, a dislocation allowance of $200 will be paid.

Business, Farm and Nonprofit Organization Moving Expenses

Displaced businesses, farm operations and nonprofit organizations in occupany at the start of negotiations for the property are entitled to recieve actual reasonable moving expenses for moving personal proeprty a distance not to exceed 50 miles or to the nearest available and adequate site. The actual and reasonable cost of searching for a replacement location may be claimed up to $500 for a farm or business and up to $100 for advertising sign companies. Such payments must be supported by receipted bill or other evidence of expenses incurred.

As an alternative moving expense procedure, in the case of self-moves, the business, farm operation, or nonprofit organization may be paid an amount to be negotiated between the State Highway Division and the displaced business, farm operation or nonprofit organization. This payment cannot exceed the lower of two estimates secured by the State Highway Division from competent moving companies.

Under certain conditions, businesses, farms, and nonprofit organizations may receive payments for direct losses of tangible personal property resulting from the necessity to relocate.

In lieu of moving expense payments, a displaced or discontinued business or farm operation, except advertising sign owners, may, under certain conditions, elect to receive an amount equal to the average annual net earnings of the business or farm operation during the two tax years immediately preceding the year in which such business or farm operation is displaced. The payment cannot exceed $10,000 and will not be less than $2,500. Those who choose the "in lieu" payment are not eligible for any other relocation benefit payment.

Storage of Personal Property

Occasionally, unusual circumstances may make the storage of personal property mutually beneficial to the displaced owner and the State. The cost of such storage may qualify for a payment in addition to the actual moving expense payments. It should be clearly understood that those dislocatees accepting the schedule or in lieu moving expense payment are not eligible to receive the storage expense benefit. This additional benefit requires the written approval from the State Highway Division and may not exceed twelve months.

Replacement Housing

A displaced owner-occupant of a dwelling actually owned and occupied by the owner for not less than 180 days immediately prior to the initiation of negotiation for such property may be eligible for additional payments, the combined total of which may not exceed $15,000.

The replacement housing payment is the amount, if any, which, when added to the amount for which the State acquired his dwelling, equals the actual cost which the owner is required to pay for a decent, safe and sanitary replacement dwelling or the amount determined by the State as necessary to purchase a comparable dwelling, whichever is less. Also, to compensate the owner for increased interest costs, the owner is required to pay for financing the replacement dwelling and for the actual closing costs incidental to the purchase of replacement housing.

A displaced owner-occupant of a dwelling actually owned and occupied by the owner for more than 90 days but less than 180 days or a tenant-occupant of more than 90 days immediately prior to initiation of negotiation for such property may be eligible for additional payments, the combined total of which may not exceed $4,000. This payment is the amount necessary to make a down payment on the purchase of a replacement dwelling and to reimburse the relocatee for the actual costs incidental the the purchase of the replacement dwelling. Necessary deposits for taxes and insurance are not considered as closing costs. In those cases where an owner-occupant of 90 days or more but less than 180 days or the tenant-occupant of 90 days or more chooses to rent instead of purchasing a replacement dwelling, he may, under certain conditions, become eligible for a payment up to $4,000 to enable him to rent a decent, safe and sanitary replacement dwelling.

The rent payment is the increase in rent necessary to rent a comparable dwelling for 48 months or the amount determined by the State as necessary to rent a comparable dwelling for 48 months, whichever is less.

To be eligible for these benefits, the displaced occupant must occupy a decent, safe and sanitary replacement dwelling within one year subsequent to the required date of displacement from the dwelling unit acquired by the State Highway Division.

Claims for housing additives and rent supplements must be made in writing on a State Highway Division form supplied for this purpose and must be filed with the State Highway Division no later than 18 months after the date of displacement of six months after final adjudication of a condemnation case.

Before payments for any replacement dwelling benefits can be made, the replacement dwelling must be checked by State Highway Division personnel to ascertain that it meets the decent, safe and sanitary standards established by the U.S. Department of Transportation.

Possession

No person lawfully occupying real property shall be required to move from his home, farm or business location without at least 90 days' written notice. This notice will not be issued prior to the State's purchase of the property.

Appeals

Any relocatee who is dissatisfied with any ruling on his eligibility or claim for any relocation benefit payment shall have the right of appeal. Appeal forms can be secured from the right-of-way agent who is handling the property acquisition. The Chief Administrative Office of the Highway

Division has designated the Condemnation Supervisor and the Right-of-Way Engineer of the Highway Division as an appeals board. Appeals must be filed with the board within one year after the date of displacement.

Any person making such an appeal will be given full opportunity to be heard at an appeal hearing arranged to examine his complaint. A prompt decision will be provided giving reasons in support of the decision reached.

Appellants who are dissatisfied with the decision of the appeals board may make a appeal, in writing, to the Administrator of the Highway Division in Salem.

Relocation Agent

Relocatees will be given detailed information regarding their eligibility and possible benefits by the relocation agent assigned to assist with the relocation.

II. Study of Available Housing in the Warrenton-Hammond-Astoria Area

This housing study for Alternative 1 was completed in February, 1974.

The number of single-family homes for sale, available for replacement housing for those who wish to purchase, are more than adequately nearby. There are four homes, one new and three nearby new homes for sale in the immediate area of the southerly end of the project. They are located just off the highway in a development known as Smith Lakes Estates. These homes vary in size and number of rooms, from two to four bedrooms. All would be considered decent, safe and sanitary. The area is well located, between

FIGURE G-1

1970 RELOCATION ACT--MONETARY BENEFITS

RESIDENTIAL				BUSINESS & FARM	
Owner-occupant of more than 180 days prior to initiation of negotiations for the parcel		Owner-occupant of less than 180 but more than 90 days and renter-occupants of more than 90 days occupancy prior to initiation of negotiations for the parcel		Owner-occupants and renter-occupants entitled to same benefits. Must occupy at initiation of negotiations for the parcel	
Housing Additive	$15,000 maximum	Rent Supplement	$4,000 maximum	Actual reasonable moving costs	Actual
Including		Or		Or	
Costs incidental to purchase of replacement dwelling		Down payment benefit and costs incidental to purchase of replacement dwelling	$4,000 maximum	Negotiated moving cost payment not to exceed lower of two estimated secured by agency	No more than low estimate
And Including		Plus		Plus	
Increased interest cost on replacement dwelling		Actual reasonable moving costs	Actual	Tangible personal property loss due to relocation	Actual value or estimated cost to move, whichever is lower
Or		Or		Plus	
Rent Supplement	$ 4,000 maximum	Moving costs based upon schedule	$ 500 maximum	Reasonable cost of search for new site	$500 maximum $100 maximum for sign companies
Plus		Or		Plus	
Actual reasonable moving costs	Actual	Storage of personal property up to twelve months, if necessary	Actual	Storage of personal property up to twelve months, when necessary	Actual
Or				Or	
Moving costs based upon schedule	$ 500 maximum			Payment "in lieu" of all other benefits--requires approval of agency	Average of net earnings for two years prior to year of relocation $2,500 minimum $10,000 maximum
Or					
Storage of personal Property up to twelve months when necessary	Actual				

Astoria and Seaside, close to all the amenities of the community, with close and easy access to the highway. It is approximately 2½ miles south of Warrenton. Further south approximately two miles, just off the highway to the east, with good access in the Cullaby Lake Development, are four more two- to three-bedroom homes for sale. These homes are in the $18,000 to $27,500 price range. One is new and three are nearly new. The area is well planned, with recreational facilities at hand. There is a day-use park with picnic tables and parking at the lake's edge, where bank fishing is allowed. A boat launching ramp is provided. Further down the west side of the lake, another, larger parking area is avilable for day-use and a boat ramp. Many of the homes are located on wooded lots, adding much to the appeal of the surroundings. Much of the area is devoted to a park reservation and is being developed by the Warrenton Water District in conjunction with the Clatsop County Soil Conservation Service.

Approximately fifteen brokers are active in the Astoria-Seaside area. They in turn support a force of many salespeople. For instance, the Hill Realty in Seaside has six salespeople. These offices have lists of offerings for sale, covering the general coastal area from east of Astoria to beyond Nehalem and in the range of prices, as advised, they feel assured that they can supply all replacement housing needed and under terms and conditions consistent with today's market.. In discussion, the realtors indicated that market offerings do fluctuate but can be expected to be fairly consistent over a period of time. Three or four homes are presently listed in the Warrenton-Hammond area, in the $19,500 to $39,500 price range. They are three- to four-bedroom homes. Nearby Astoria, though not having extensive offerings, can add ten to fifteen to the list; Seaside, 8± miles southerly, has a selection of 8-10 offerings in the range and type needed.

Mrs. Hill of Hill Realty in Seaside is an agent for the Tualatin Home, a pre-cut that can be constructed on a lot, supplied by her or the propsective buyer. These three-bedroom houses start at $16,450, with financing available.

Also, it was noted in searching the area that some people, as is expected, have "For sale by owner" signs out. Four or five of these offerings were seen. All appeared, from their exterior appearance, to be decent, safe and sanitary housing.

Single-family rental offerings are in limited supply. Not many owners find it necessary to avail themselves of the services of a real estate broker to find desirable tenants. This search revealed three three-bedroom rental offerings in Seaside, two in Astoria. Many of the brokers own rental properties for their income-producing capabilities. Given sufficient lead time, it is obvious that decent, safe and sanitary replacement rental housing can be obtained. The supply of single-family residential rentals is not expected to increase noticeably, but vacancies do occur by normal turnover, depending upon many factors. A good many apartments are available, in duplex, tri-plex and multiple-family form in one to three bedrooms in size. A new rental apartment is presently under construction in the Cullaby Lake Development.

There are no other known residential displacements under Federal, state, community or other projects in this area.

In summation, single-family residential offerings are more than ample to meet the demands created by Alternative 1. The only foreseeable problem may arise in the area of single-family rental replacement housing. Even though the market is limited, enough of these offerings will become available over a period of 6 to 8 months to supply the needs from this project. The supply of available apartment units, with more under con-

struction, could very well relieve some of the pressure for the needs for single-family units in this area, as it has in others.

(Alternative 2, improvement of the existing route, would require many more relocations than Alternative 1. Refer back to the right-of-way section of this report. Finding suitable replacement housing for 3 commercial businesses, 45 single-family residences, and 29 multi-family residences would prove a much more difficult task than the small number in Alternative 1.)

APPENDIX H

Inventory of Developed Public Recreational Sites and Facilities

Within a fifteen-mile radius of the project area are many developed or semi-developed public recreation sites and facilities, as listed herein. In addition to those within Oregon, the State of Washington has several parks on or near the north shore of the Columbia River that are easily accessible to the project area via the Astoria-Megler bridge.

Federal

Fort Clatsop National Memorial. This historical memorial marks the site where the Lewis and Clark Expedition established winter quarters in 1805-1806. The memorial contains a replica of the original fort. The 125-acre memorial was authorized by Congress in 1958. In 1974, the memorial had 85,072 visitors. The area is located six miles southwest of Astoria and approximately two miles east of the project area.

Lewis and Clark National Wildlife Refuge. This national refuge is located east of Tongue Point in the Columbia River and consists of more than 20 named and unnamed islands and sand bars in the lower Columbia River stretching from 5 miles north of Astoria, Oregon, 17 miles up river. Waterfowl hunting, fishing, and other water-related recreational activities are permitted.

State of Oregon

Fort Stevens State Park. This park contains 3,763 acres of lowland park area of sand flats, shallow lakes, and dune ridges. It borders a broad, sandy beach of the Pacific Ocean and the mouth of the Columbia River. It is accessed by the Fort Stevens Highway and lies three miles west of U.S. 101 and 10 miles from Astoria. The area contains historic Fort Stevens. Immediately west of the main park development is the wreck of the Peter Iredale, a British sailing vessel which ran aground in 1906. Fort Stevens features picknicking, swimming,

boating, bicycling, fishing, clamming, and camping. The campground contains 603 available campsites. It is the largest public park along the northern Oregon Coast. In 1973-74 season, 169,678 camper nights were recorded in the park, the most intensively used in the state. Day visitor attendance was 1,098,340, the second highest in the Oregon park system.

Del Ray Beach State Wayside. Located 15 miles southwest of Astoria, this beach park contains 18.7 acres. The wayside is undeveloped except for an access road and parking area. Day visitor attendance in 1973-74 season was 101,163.

Ecola State Park. This 1,300-acre park extends from Tillamook Head, south of Seaside, to Chapman Point, just north of Cannon Beach. The park has 68 picnic sites and offers fishing, beachcombing, hiking, and swimming. The park has a shoreline of six miles. Day visitor attendance in 1973-74 was 187,748 persons.

State of Washington

Fort Canby Historical State Park. This 1,666-acre park is located at the mouth of the Columbia River on Cape Disappointment, two miles west of Ilwaco. The park offers thirty campsites, a boat launch, swimming and fishing. It was here that Lewis and Clark first reached the Pacific Ocean in November of 1805. Permanent defense works were established here in 1862. Since that time, Fort Canby has experienced various stages of activity through the Civil and Spanish American Wars and World Wars I and II.

Fort Columbia Historical State Park. Located one mile east of Chinook near U.S. 101, this 554-acre park offers picnicking, fishing and a historic site. Fort Columbia, along with Forts Canby and Stevens, was built to guard the mouth of the Columbia River. The old gun embankments, some of the buildings, and an

interpretive center featuring exploration of the Northwest are opened to visitors at this registered historic landmark.

Chinook Point National Historic Place and Lewis and Clark Campsite State Park. Chinook Point is 0.5 mile southeast of Fort Columbia. The Lewis and Clark Campsite is a small, one-half acre heritage site two miles south of Chinook.

Clatsop County Parks

Cullaby Lake County Park. This county park, located 1.8 miles south of the southern end of the subject highway project , comprises 195 acres of park around Cullaby Lake and Carnahan Park. Cullaby Lake covers an area of 216 acres. Twenty picnic sites, fire pits, drinking water and restrooms are provided. The park has a total of four boat launching ramps. The lake area is used for fishing, swimming, water skiing, picnicking, and regatta boat races.

Young's River Falls County Park. This park is located on Young's River Loop Road, approximately 15 miles south of Astoria. The ten-acre park has picnic tables, fire pits, restrooms and drinking water. Visitors enjoy fishing, hiking and swimming.

Klatskanine County Park and Fishhawk Falls County Park. These parks are on Highway 202 and are semi-improved, suitable for picnicking.

Kloochy Creek Park. This park, dedicated for local use, is owned and maintained by Crown Zellerbach corporation. The park is off U.S. 26, five miles southeast of Seaside and contains twelve tent campsites and eighteen picnic sites. The park contains the largest Sitka spruce tree in the world.

City Recreational Facilities

Astoria. Being the oldest city in Oregon, Astoria has many fine points of historic interest in addition to city parks. In total, Astoria has 59.5 acres of parkland, including the Astoria Column, Fort Astoria, and the Columbia River Maritime Museum. Astoria offers an excellent moorage area, a yacht club and an 18-hole golf and country club. The golf course is on the Clatsop Plains south of the project area. The private course offers guest privileges.

Warrenton. Warrenton is the charter boat center for salmon fishing at the mouth of the Columbia River. The Warrenton Moorage Basin on the Skipanon River offers moorage for approximately 300 vessels.

Hammond. Hammond, also, has an excellent boat basin for sport and commercial fishing in addition to access to the coast and Columbia River.

Gearhart. Gearhart, along with Seaside and Cannon Beach, is a beach resort community offering a wide variety of recreation pursuits, including beachcombing, clamming, fishing, swimming and golfing. The once private Gearhart-By-The-Sea golf course, an 18-hole course, is adjacent to U.S. 101.

Seaside and Cannon Beach. Seaside, Oregon's leading resort city, dates back to 1871 when Ben Holladay established a lavish hotel there. Both cities afford a wide variety of activities, from surfing and clamming to golfing, fishing, and horseback riding. Seaside has a public nine-hole golf course and a convention center seating 2,000. Seaside has ten acres in city parks; Cannon Beach, three acres.

Westport, Ilwaco and Long Beach. These Washington communities at the mouth of the Columbia River offer excellent sport fishing ports (Westport and Ilwaco).

The 280-mile long sand beach near Long Beach offers picnicking, clam digging, beachcombing, surf fishing, horseback riding, and other outdoor sports.

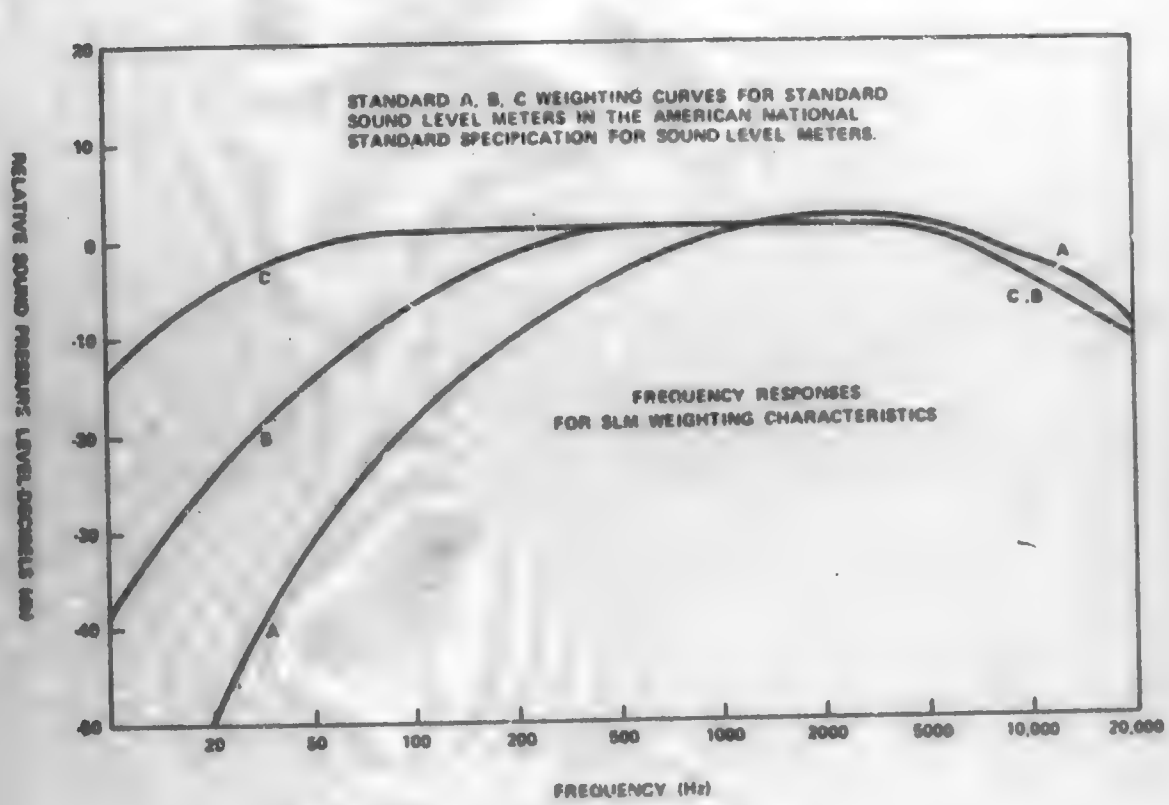
APPENDIX I

Acoustical Analysis

Sound Measurement

Sound level meters have built-in weighting networks which are used to simulate human hearing perception. An A weighting network (Figure I-1) is used for most sound measurements because it was designed to approximate the normal hearing threshold curve for young adults and has been found to correlate well with subjective response. The B and C networks were originally intended for use in measuring sounds of high intensity, but are seldom used today. Sound level requirements are given in dBA to indicate the use of the A weighting network.

Figure I-1



Loudness

Because sound pressure levels are derived using logarithms, a doubling of sound intensity always results in a 3 dBA increase in sound level.[1] A ten-decibel increase, however, is required before a doubling of loudness is perceived. Thus, assuming constant speed, a doubling of traffic volumes on a given street will, theoretically, result in a 3 dBA increase in sound level, a change which would be barely noticeable.

Conversely, directing half the traffic volumes from a heavily-traveled street onto a less well-traveled street will lower the noise level on the first street by only 3 dBA, while increasing the noise level on the second street substantially.

Figure I-2, on the next page, may be used to gauge the relative loudness of sounds discussed in this document.

Traffic Noise Parameters

Since traffic noises fluctuate through time, they cannot be described by a simple dBA measurement, as would be used for steady noises. Instead, statistical descriptions are used to show the percentage of time a given sound level is exceeded.

Figure I-3 represents noise level as a function of time as it might occur beside a highway. The sketch in the figure represents five minutes of

[1]The decibel is defined as ten times the logarithm of the ratio of sound intensity to that of a standard reference intensity.

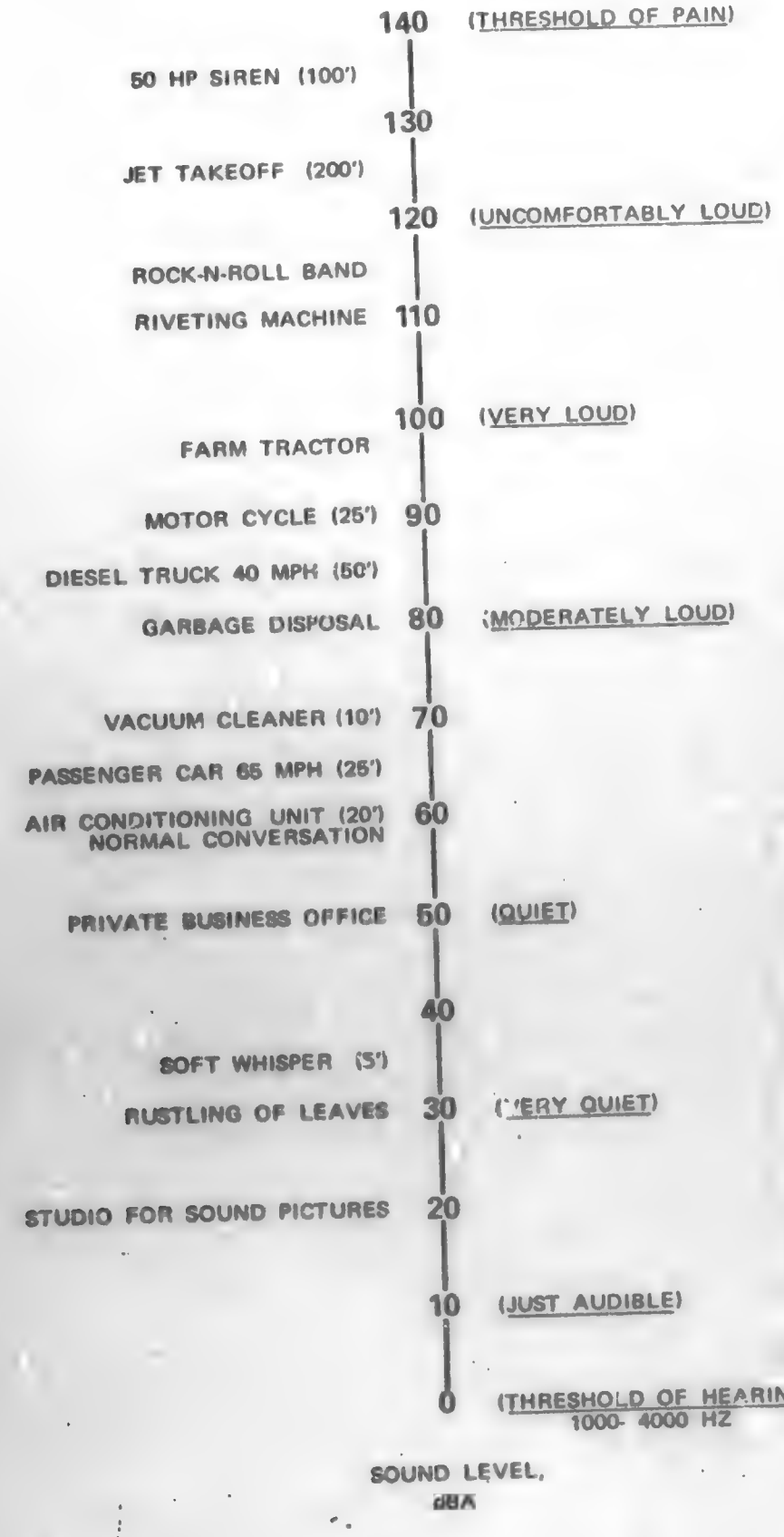
$$dB = 10 \text{ LOG } \frac{\text{SOUND INTENSITY}}{\text{STANDARD REFERENCE INTENSITY}}$$

To combine decibels, sound intensities must be added and the logarithm of the sum taken. For two equal sources, the sound level increase is:

$$dB = 10 \text{ LOG } (2) = 3.0103$$

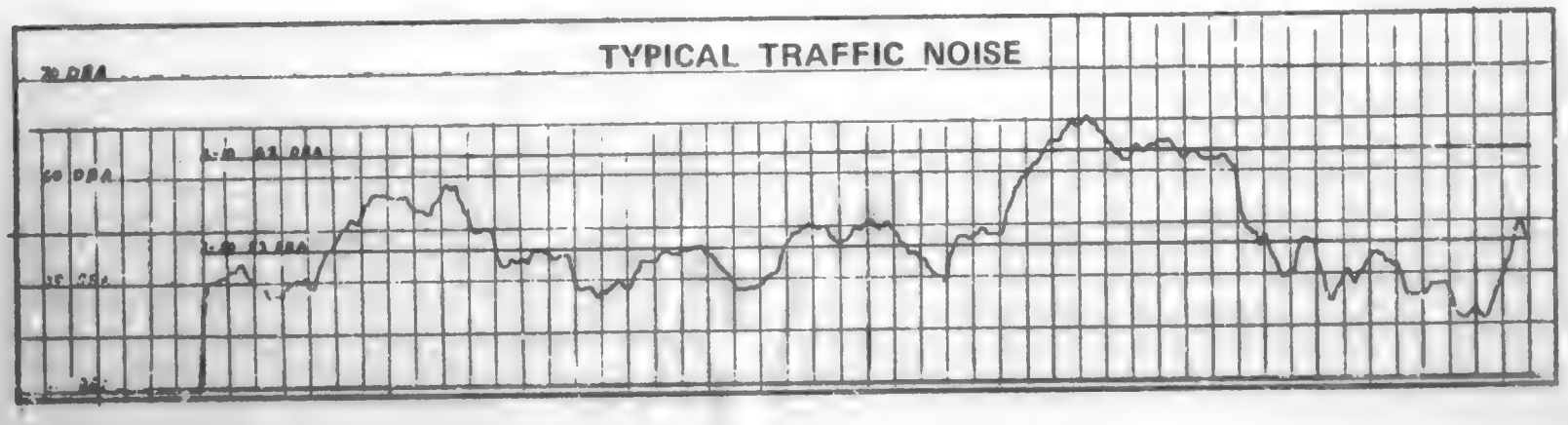
FIGURE I-2

TYPICAL A WEIGHTED
SOUND PRESSURE LEVELS



actual recorded traffic noise. The strip chart was running at a speed of ten lines per minutes. Of the fifty samples taken, five equal or exceed 61 dBA which becomes L_{10}. Twenty-five samples equal or exceed 53 dBA, establishing the L_{50} level. This level is called the L_{10} sound level and is an indicator of the maximum sound level during a given time interval. The L_{10} sound level is largely influenced by the number and speed of trucks and is used in the FHWA guidelines to estimate noise impact on land-use sites.

FIGURE I-3



The sound level exceeded 50 percent of the time is called the L_{50} sound level. A reasonably reliable description of the urban noise enviornment can be given by stating these statistical levels over a specified portion of the day.

The Federal Highway Administration has developed guidelines for five categories of land use, based on their sensitivity to noise. Figure I-4, presented on the next page, shows the design L_{10} noise level. When preliminary analysis shows these guidelines will be exceeded, exemptions must be sought from the Federal Highway Administration.

FIGURE I-4

FEDERAL HIGHWAY ADMINISTRATION NOISE GUIDELINES

Land-Use Category	Design Noise Level - L_{10}	Description of Land-Use Category
A	60 dBA (Exterior)	Tracts of lands in which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, or open spaces which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B	70 dBA (Exterior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, picnic areas, recreation areas, playgrounds, active sports areas, and parks.
C	75 dBA (Exterior)	Developed lands, properties or activities not included in categories A and B above.
D	--	For requirements on undeveloped lands see paragraphs 5A(5) and (6), this PPM.
E	55 dBA (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libaries, hospitals and auditoriums.

Source: U.S. Dept. of Transportation, Federal Highway Administration PPM 90-2, Noise Standards and Procedures, (Transmittal 229, Feb. 8, 1973).

APPENDIX J

Letter from U.S. Coast Guard
to Clatsop County

J-1

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS
COMMANDER (oan)
THIRTEENTH COAST GUARD DISTRICT
915 SECOND AVE
SEATTLE, WASH. 98174
PHONE (206) 442-5864

16591
Serial 280
18 May 1977

Board of County Commissioners
for Clatsop County, Oregon
Attention: Mr. Albert W. Palmer
Chairman
Courthouse
Astoria, Oregon 97103

Re: Proposed Skipanon River Bridge
at Mile 4.4

Dear Chairman Palmer:

Your letter of 9 May 1977 recommending the vertical clearance of the referenced bridge be increased by three feet over the Oregon State Highway Division proposal has been received.

Permits are granted for those bridges which provide for the reasonable needs of navigation. However, in cases where a structure is not objectionable from the standpoint of navigation but when State or local authorities decline to give their consent to the work, it is not usual for the Coast Guard to issue a permit.

In this instance Clatsop County is objecting to the proposed bridge because "it could be restrictive to any possible future development of the area". This is considered an objection from the standpoint of navigation, therefore, the complete record has been reviewed to try to determine whether the proposed bridge will provide for the reasonable needs of navigation.

There are presently three water control structures on the Skipanon River including the main flood gate at 8th Street in Warrenton, the middle control structure between 8th Street and Cullaby Lake and the Cullaby Lake structure. The 8th Street structure controls the water level above it at 3.5 feet above MSL, and the middle structure controls the water level above it at 7.25 feet above MSL during the summer months. The Cullaby Lake structure controls Cullaby Lake at 1.5 feet or more above the middle structure during summer months and also maintains the lake level year around. The purpose of these structures is to provide flood control and irrigation, and testimony at the Public Hearing indicated these functions are more than satisfactory as well as the project being responsible for increased cranberry production and the addition of the school fish farm.

Subj: Proposed Skipanon River Bridge at Mile 4.4

In addition to the water control structures there are three bridges across the Skipanon above the 8th Street flood control gate. The bridge at Mile 4.0 was constructed as a single-leaf bascule type which is permitted by regulation to remain in the closed position. The other two bridges are fixed. All three bridges provide less vertical clearance than would be provided by the proposed bridge.

For the Skipanon River to be developed for navigation, other than presently provided from the control structure at 8th Street and upstream therefrom, the three water control structures would require removal, the three bridges would probably have to be raised to provide more vertical clearance, locks would have to be installed to maintain the level of Cullaby Lake and the channel would have to be dredged. There does not seem a reasonable possibility that anyone would finance or undertake such a project, especially in light of the existing flood control project and the benefits it provides.

On the drawings published with Public Notice No. 77-N-01, which describes the proposed bridge, a vertical clearance of 6.5 feet is shown from H.W. Elevation 5.0 feet. This water surface was misinterpreted as 5.0 feet above MSL and was incorrectly shown on the drawings. The water surface at the proposed bridge site, under controlled conditions, is actually 3.5 feet above MSL. Therefore, the controlled water surface gives a vertical clearance of 8.2 feet at the proposed bridge which is more than the other three existing bridges provide.

Oregon State Highway Division has advised that raising the proposed bridge three feet at the same location and on the same alignment would cost approximately an additional $42,000.00.

The proposed bridge would provide 1.7 feet more vertical clearance than was shown on the drawings of Public Notice No. 77-N-01. You are requested to advise if this additional 1.7 feet of vertical clearance is acceptable for navigation rather than the 3.0 feet you recommended.

Your cooperation is appreciated.

Sincerely,

R. C. Walton

R. C. WALTON
Commander, U. S. Coast Guard
Chief, Aids to Navigation Branch
By direction of the District Commander

Copy to:
OSHD
CREST

.1979 S. Unit, Astoria - 8949
.Camp Rilea Sec. 101.
.(Gr. pave, str. & sign.) #6

8949

ROBERT W. STRAUB
GOVERNOR

Department of Environmental Quality

1234 S.W. MORRISON STREET, PORTLAND. OREGON 97205 Telephone (503) 229- 6086

August 12, 1977

Mr. Gary A. Potter, Manager
Environmental Section
Oregon State Highway Division
Transportation Building
Salem, Oregon 97310

Re: Astoria-Camp Rilea Section
Oregon Coast Highway (US 101)
Draft Environmental Impact Statement

Dear Mr. Potter:

I have reviewed the above referenced document and concur with the findings of your Department that the proposed project and its alternatives are consistent with the State of Oregon Clean Air Act Implementation Plan.

Please let me know if any additional comments are desired from the Department.

Sincerely,

Anthony J. George, Jr.
Transportation Control Program
Coordinator

AJG:h

Contains Recycled Materials

DEQ-1

8949

Commission Meeting
y 19, 1977

Transcript not checked

Start of Astoria Delegation

MR. FRED L. BARNUM: Mr. Chairman and Members of the Commission, my name is Fred Barnum. I'm the President of the Astoria Area Chamber of Commerce. I'd like to present to you gentlemen, if I might, and I'll let you pass these around, a schedule of the speakers that will be speaking to you this morning.

I'm going to make my remarks very, very brief, but number 1, our interest this morning is to show you a unanimous front from Clatsop County regarding Highway 101, particularly the widening and the straightening from Astoria to Gearhart. We're talking about interested citizens throughout the state in this particular project, I am sure. But specifically, Seaside, Gearhart, Hammond, Warrenton, Astoria, Clatsop County and many others, all of whom are here today to speak to you this morning regarding this subject.

The first speaker on the program this morning, and I'm going to call upon, will be Bob Chopping, the Mayor of Astoria, who will make his remarks.

MR. BOB CHOPPING: Mr. Chairman, Members of the Commission. It's been about three years since we had the pleasure of meeting with you, and at that time we discussed with you the possible improvement of Highway 30 east of Astoria. I'm happy to report that those improvements were made, and although it's not a super highway, it is much safer and it's much easier to travel than before. And I'd like to take this moment in behalf of the citizens of Clatsop County to thank you for this improvement which has meant so much to our area.

Today we're here in behalf of the citizens of Clatsop County to once again seek your assistance in a project that's been on the drawing boards for many years, and that's the proposed highway construction project of Highway 101 between Astoria and Gearhart.

Several years ago the community leaders, most of who are here today, in a series of meetings recognized that much had to be done on a local basis to put our house in order. We were awakened by the loss of a major industry, but this loss I think has turned out to be a blessing in disguise, because we realize in order to have growth, we have to have many things. It became very apparent to us very quickly that we had three industries on which to depend and which could grow with the right planning and assistance.

So we immediately formed the Columbia River Estuary Task Force, known commonly as CREST. Now this organization was given the responsibility to study the estuary and plan the estuary in such a way that orderly growth would take place. And I'm happy to report that their job will be completed in about one year. The port took on the project of a long-range plan, and it is now completed. Clatsop County took on its comprehension plan and it's nearing completion. Then we formed the Clatsop County Economic Development Committee, and its responsibility was to study fishing, forestry, tourism, the port and many other items to determine what help might be given to assist these industries in their growth. In just a short time they have been able to secure a grant for the building of a service dock out in the Warrenton area, they've reared 7 million fall chinook in the Youngs Bay area, and all this on several grants that they've been able to secure. Now this organization has many other projects in the beginning stage and it has been a decided factor in the growth of the area.

I'd also like to mention that the Chamber of Commerce has embarked on a program of mini parks along the waterfront to enhance our tourist attractions, and just recently money was allocated for

this project.

I'm sure most of you are aware of our Maritime Museum which hopefully we will have completed in about 1 year, and we expect this to bring thousands of tourists to the area.

And one small item, just recently a private organization started a sight-seeing boat along the waterfront called the Astoria Queen, which is becoming very popular.

I could go on and on and tell you of all the things that we've done in the local area, but in the interest of time I won't take that time. I've been telling you these things to point out one very important item. Many times following the loss of a major industry a few years ago, the leaders of the area were constantly told to get the house in order if we expected any kind of growth in the future. I think in these few moments, I've shown you that the community has gotten its house in order. We've taken the initiative to strengthen our economy by forming committees and working together toward common goals to enhance these industries we already have. But the time now has come to ask you for your help - help in the form of construction of Highway 101 between Astoria and Gearhart.

This section of highway has been on the drawing boards for years and yet the construction has been delayed time after time, and I think the time has come to move ahead.

Just briefly, we now have a new shopping center at the Marlin Avenue Intersection of Highway 101 which houses Pay Less and Thriftway. This shopping center is drawing hundreds of people from the South end of the county, as far down as Rockaway. The Seaside Convention Center books more and more conventions each year, and these delegates travel 101 from Seaside to Astoria.

Soon we will complete the construction of a new $5 million hospital, making Astoria the medical center for the entire north coast. The traffic count over the Columbia Bridge continues to increase every year. The Coast Guard has doubled its complement out at Clatsop Airport, and most of these men are living in the area between Astoria and Seaside. In just a few minutes one of our County Commissioners will actually give you the traffic count on that section due to all these factors, and if you add them all together you can see that the traffic conditions on this section of highway are becoming a very serious problem. You're going to be hearing from others that are here this morning, so I'm not going to take any more of your time. I'd just like to say that I appreciate the opportunity of meeting with you and hope that you'll take some action to bring this construction project out on the front burner.

At this time I'd like to present to you, representing the Warrenton Chamber of Commerce, Mr. Scotty Cameron. Scotty.

MR. STEWART E. CAMERON: Thank you Bob. Mr. Chairman, members of the Highway Commission. I'll just be here for a few minutes today, but one of the primary reasons is to more or less prove to the Commission that our house is in order. We're pulling together.

I'm really substituting for Mr. Dick Baldwin who some of you may well know personally, and he did ask me to point out historically what has happened in this particular section of highway that we're talking about. I have a few extracts from the Astoria-Gearhart section of the Technical Report of Oregon Coast Highway 101 put out in 1959, and I would like those put to the Commission.

You'll want to keep in mind that this particular section of highway has been on the books now and on the drawing boards and schedules, as I recall, three different times previously. This is the fourth time; it is scheduled for which we are very grateful. But if it goes as has in the past, it will probably be scratched again and we don't want to see that happen.

One particular item on the handout that you have is the User Benefit Ratio. I believe the rule of thumb as 1 to 1 is excellent. The User Benefit Ratio, as pointed out to you folks there, is 1 to 6.59. In other words, you get back 6.59 dollars for every dollar spent. They sound like pretty good figures to me; I realize that the cost of construction from 1959 to 1977 is considerably more, but everything else is up and probably the ratio would/be still quite accurate.

I don't believe that I have anything else that would not be redundant with remarks you're going to hear from other people, so at this time I'd like to present to you Mr. George Grove, the Astoria Port Manager.

MR. GEORGE GROVE: Mr. Chairman and Commission members. Traditionally, the Port of Astoria's role in world trade has been somewhat limited to the export of logs, lumber and grain, and inward movements of some fertilizers, fish and pulp. Slowly but surely this pattern is changing. The role of the Port of Astoria is becoming more important to the entire state of Oregon and will become even more so in the future. The planned construction of the Fabrication plant and the resultant satellite industries is but one aspect of the changing role of the Port. The strategic physical location foretells its changing role of importance for

the future. A study by the Army Corps of Engineers for deepening the entrance of the channel of the Columbia River and the long range plan of a 50 foot channel to Tongue Point heightens the possibility of maintaining the Columbia River ports' determination to allow Oregon products to more effectively move to world markets and conversely allow those products of the trading nations to be distributed throughout Oregon in the Columbia-Snake River System hinterland.

Now, what have these facts to do with our appearance before your group today? Simply, a port will be limited in its growth by the transportation net which serves it. This of course includes highways, railroads and availability of barge services. Our highway system serving the Astoria area is woeful in its ability to serve modern, large highway carriers. To some extent this is also true of tourist vehicles. We are almost daily speaking with potential customers of the Port, and invariably their questions revolve around the ability of the transportation net to adequately serve the Port. Freight rates depend to a great extent upon an efficient highway system. It is our opinion that Astoria is presently suffering from a lack of such a system, without which efforts by our community to attract additional needed and clean industry will continue to be thwarted.

Therefore, our mission in appearing before you today is to strongly urge consideration for widening and realigning improvements to be made to Highway 101. The results, we are confident, will reflect themselves affirmatively in overall economic benefits to the entire State of Oregon.

We would like at this time to present to you, if we may, petitions signed by the residents of Clatsop County totalling some 7,000 alone for Highway 101 improvements, and including Highway 30,

13,000 valid signatures. You'd better open the door back there so this can go on out.

JACKSON: The building isn't long enough!

MR. GROVE: Gentlemen, while this is somewhat a strange way to present our case in a stronger manner, nonetheless, it does represent valid signatures of those persons who are urging highway improvements in our county.

I would like at this time to present Clatsop County Commissioner Orville Nikula.

MR. ORVILLE NIKULA: Mr. Chairman, members of the Commission. Those are my constituents. I'm not going to bore you with repetition of the history of Highway 101 realignment; I would like to address myself rather to the future economic growth of Clatsop County.

Clatsop County, as many of you undoubtedly know, is sort of unique in the state of Oregon. It is the playground - the recreation area - for a tremendously large number of Oregon residents, and the help that we are seeking in the realignment and the improvements on Highway 101 are not only for the residents of Clatsop County, but also for all of those fortunate Oregonians who have the opportunity to visit in Clatsop County.

During the past 6 years traffic counts from the Oregon State Highway Division show a tremendous increase in traffic on our roads. I have some figures here, not very many - it won't be too boring, but I think that they may sort of bring to focus the problem that we're facing. I've got a comparison of the 1971 traffic counts and the 1975 ADTV average daily traffic on several points in Clatsop

County. On the Astoria Bridge, the 1971 figures were 1430 vehicles daily. In 1976, 2070 vehicles daily, for an increase of 45%. South of Warrenton the traffic counter shows an increase of 6500 to 7300 daily, an increase of 12%. North of Gearhart an increase from 5517 to 7200, for 35% increase in traffic. At Seaside, an increase from 8200 to 9100 daily, an 11% increase. North of Cannon Beach Junction, from 6300 to 7100, a 13% increase. At Cannon Beach, from 3250 to 4000, a 23% increase; and at Arch Cape, which is the southernmost part of Clatsop County, from 1850 to 2200, a 19% increase.

Now these increases have been a natural and normal growth within the county and do not in any way reflect what we anticipate in the additional traffic patterns within the next few years through particularly the development- the fuller development - of our timber resource, the greater usage of our parks - State parks, we have in Clatsop County probably the largest number of State Parks within the State as far as acreage is concerned. Fort Stevens State Park last year had almost a million visitors. Their figures show that over 65% of these people came from the metropolitan area of Portland and the Willamette Valley.

We anticipate greater growth in truck traffic. Dant & Russell has announced a new dry kiln which is going to generate 300 trucks monthly. Brown & Root as you know, are on line with their permits and if and when they get off the ground, we're going to have added traffic burdens.

Camp Rilea, which was mentioned, is booked solid through October of this year. Camp Rilea is no longer basically a primarily Army a National Guard Camp, it is now being utilized by parts of the Regular Army, as well as has some recreational value. The Portland

Youth Program is holding some meetings there.

Our tourism is growing rapidly. Our roads are not keeping up with the tourist growth, and I don't think there is a body in the state - any group of gentlemen in the state - who are as well aware of the direct relationship of roads to a viable economy. And I would just like to repeat what Mr. Cameron stated earlier, that we cannot afford to have this realignment not kept on line. Neither the County nor the State can afford that.

Thank you very much, and I would now like to call Senator Hanlon to close for us.

SENATOR CHARLES HANLON: Mr. Chairman, Members of the Commission. I recall a moment last January when you were kind enough to come and visit my committee; I'm more than delighted to return that courtesy.

I really want to underline to you that something very important is happening in Clatsop County in these years. For quite a long while it seemed that that part of the state did not seem to be getting its fair share of the growth and prosperity that was occurring throughout Oregon in general. One thing here after another was tried and somehow failed, but Clatsop County has turned the corner in the recent years. There's a spirit of cooperation there and some of the projects that they have talked about for a long while have already been brough to fruition; more are forthcoming and I think we can properly say this morning that Clatsop County is in the winner's circle for the first time in quite a long while. But we need your help on this particular section of 101. You know what section it is and you know that the problems - I won't go into that - but we do need your help and as soon as we can get it. And these gentlemen

that came with me asked me to invite you to come down and hold one of your Commission meetings in Clatsop County. We would love to be your host. We hope you will consider that seriously, and Mr. Roy Hammond will be in touch with your staff to work out the details; we'd be delighted if you'd come, and as soon as you can.

The only further comment I have - I'd like to yield now to my colleague Representative Ted Bugas. Thank you very much.

JACKSON: Thank you, Senator.

REPRESENTATIVE TED BUGAS: Mr. Chairman, Commission. As a freshman legislator from Astoria whose background is in the fish business, I found out early that I had to get interested in some other things like tourism and transportation. I guess I really found that out a year or two ago when I took over the chore of being the first chairman of the Economic Development Committee that Mayor Chopping referred to. This Committee has done a job of which we're all proud and I'm very appreciative of your time today to listen to all of the citizens out our direction talk to you about the need for specifically the straightening of the Camp Rilea bypass or the highway there. It amounts to the bypass that is in your plan for next fiscal, and ask you to by all means give your attention and emphasis to that particular project and any other that helps us in our number one priority which is the 101 area.

I only want to reiterate that we would like to have you come down there and have one of your meetings in the area. I don't think any of you - I know two or three of you, knowing Pete, have been down there a few times, and you Mr. Jackson; but we have a coordinated effort as I think you can see from the evidence this morning. We do have problems on highways, and we do have the

playground for well over half the population of the state in the proximity that we present for recreation park and otherwise to the Portland and the Tri-County area. I know you're aware of all this but I've become more keenly aware of it in the last year that I've been Representative and I only want to underline what the other gentlemen here this evening - or this morning have asked of you, and again ask you to come out and see us. Thank you for the time you've given us.

JACKSON: Thank you.

ROY HAMMOND: Thank you very much for the opportunity to appear. I'll be in touch about our invitation for you, which we hope you'll accept. We look forward to that.

JACKSON: Fine. Well I think you know that our problem now lies with the voters and I hope that that list of signatures there will all vote yes to both of the things that will undoubtedly be on the ballot.

? They batter.

JACKSON: And I want to thank both the Senator and the Representative from your County for their help and support in trying to solve some of our problems in the Legislature. Now I understand we have a delegation here from Lincoln City. We've got a little problem here. I wonder if we can reconvene here at 11:30. I know this is asking a number of people who want to be heard on various matters to give up a little time, but that's about the best we can do because we have to go over to the Governor's office. All right, 11:30. And will that be satisfactory with you?

[illegible]:

JACKSON: We can reconvene at 11:30. The Commission is meeting with the Chairman of the House Transportation Committee from Washington and we've got a bill that we want to sell him. So we'll reconvene at 11:30.

End of tape

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

July 7, 1977

FROM: Frank E. Terpin, Supervisor
Engineering Support Services Unit

TO: E. S. Hunter, Manager
Technical Services Branch

SUBJECT: Construction Status Report
Astoria-Seaside Section
Oregon Coast Highway
Clatsop County

This report is for use at the July 19 Commission meeting. The tabulation sheet lists projects completed, projects programed, and their costs. A map is attached delineating the areas.

A narrative on the Astoria-Camp Rilea South Unit Section and the Neacoxie Creek to Seaside Section is also attached.

Attachments
VB:jp

ASTORIA-CAMP RILEA, SOUTH UNIT

OREGON COAST HIGHWAY

This 2.8-mile proposed re.. ignment of the Oregon Coast Highway is listed in the 6-Year Highway Improvement Program for Fiscal Year 1979. It has not been approved by the Transportation Commission for construction. Reconstruction will consist of continuing the 2-lane section from the North Unit to the vicinity of the railroad crossing and 4 lanes from the railroad to the southern end of the proposed project.

A design hearing was held on August 12, 1976. It is anticipated that a minimum time of 18 months will be required before a construction contract could be awarded. Approximately 26 right of way parcels, some involving improvements, have yet to be acquired. Necessary permits from the Coast Guard and Corps of Engineers relative to the Skipanon River crossing are pending.

DB:mc

6/7/77

HIGHWAY CONSTRUCTION PROJECTS

ASTORIA-SEASIDE SECTION
OREGON COAST HIGHWAY

Projects Completed and Projects Programed

Map No.	Section	Length (Miles)	Type Work	Status or Year Completed	Estimated Cost
1	Astoria (Columbia R) Br	2.82	Grade,Pave,Str	1967	$ 27,300,000
2	Ore Coast Hwy @ Marine Dr	-	Signal	1974	48,000
3	Smith Point (Astoria)	0.19	Illum, Rdsd Improvement Sign & Illum	1965 1976 1976	17,000 53,000 56,000
4	Astoria (MP 4.46)	-	R.R. Gates	1973	15,000
5	Youngs Bay Bridge	0.8	Structure	1964	2,700,000
6	Astoria-Camp Rilea, N Unit	3.27	Grade,Pave	1964	1,600,000
7	Warrenton (MP 6.47)	-	R.R. Gates	1973	17,000
8	SE Marlin Ave (Warrenton)	0.29	Grade,Pave	1975	57,000
9	Astoria-Camp Rilea, S Unit	2.80	Grade,Pave,Str, Sign	6-Yr Program* 1979	4,100,000
10	Pacific Way (Gearhart)	-	Signal	1976	20,000
11	Broadway St (Seaside)	-	Signal	1973	25,000
12	"U" Avenue (Seaside)	-	Signal	1976	27,000

Projects Completed	$ 31,945,000
Projects Programed	4,100,000
Total	$ 36,045,000

*Approved for preliminary engineering only.

OREGON STATE HIGHWAY CONSTRUCTION PROJECTS
OREGON COAST HIGHWAY
CLATSOP COUNTY

Projects Completed

Projects Programed (6-yr. Program)

WARRENTON
Pop 2,600
Sunset Beach
GEARHART
Pop 650
SEASIDE
Pop. 4,150
Surf Pines
Miles Crossing
CLATSOP COUNTY AIRPORT
FORT CLATSOP NATIONAL MEMORIAL
CAMP RILEA
CULLABY LAKE COUNTY PARK
West Lake
Dellmoor (Site)
Melville (Site)
SEASIDE AIRPORT
WARRENTON RES.
WARRENTON DAM
RADIO TRANSMITTING
T7N
T6N
R10W
R9W
R8W
R7W
R6W
R5W
R4W
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R2W
R1W
R1E
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NEACOXIE CREEK-SEASIDE SECTION
OREGON COAST HIGHWAY

A field survey was conducted in 1975 on Highway 101 between Neacoxie Creek (MP 13.84) and Seaside (MP 19.72), a distance of 5.88 miles. A non-skid asphalt concrete wearing surface was considered, plus other safety improvements such as flared guardrail, access control curbs and guideposts. Total cost would be $700,000 and no new right of way was considered. This section is not included in the Six-Year Program.

A portion of the section has asphalt concrete pavement consisting of two 12-foot driving lanes with two 6-foot rock shoulders. The remainder has portland cement concrete pavement consisting of two 10-foot driving lanes with two 3-foot rock shoulders. This section was constructed in the 1920's and 1930's. There is a newer section through Gearhart consisting of four 12-foot driving lanes with two 12-foot rock shoulders which was constructed by State forces in 1968 and 1972.

The 1976 ADT ranges from a low of 6,500 at the north end to a high of 9,500 at Seaside. The 20-year projections are 10,000 at the north end and 13,500 at Seaside.

The accident rate per million vehicle miles ranges from 1.72 at the north end to 3.72 at Seaside. This compares to a statewide rate of 1.69 for nonfreeways rural to 3.64 nonfreeway suburban.

6/7/77

OREGON TRANSPORTATION COMMISSION

Delegation: Mr. Roy Hammond, Manager, Astoria Area Chamber of Commerce, re Astoria-Camp Rilea Section of the Oregon Coast Highway

Date: July 19, 1977

Time: 10:00 a.m.

Name	City or Town	Capacity
Don Henry	Warrenton	Warrenton Chamber of Commerce
Charles Hanlon		Senator, District 4
Stewart E. Cameron	"	Spokesman - Hiway Comm.
Woodrow Wilson	"	Transportation Comm
George R. Grover	Astoria	Director Port of Astoria

OREGON TRANSPORTATION COMMISSION

Delegation Mr. Roy Hammond, Manager, Astoria Area Chamber of Commerce, re Astoria-Camp Rilea section of the Oregon Coast Highway

Date July 19, 1977

Time 10:00 a.m.

Name	City or Town	Capacity
Don Henery	Warrenton	Warrenton Chamber of Commerce
Charles Hanlon		Senator District #1
Stewart E Emerson	Warrenton	Bicycle Committee, Warrenton C.C. will speak
Woodrow Wilson	Warrenton	Transportation Comm.
George L Glover	Astoria	Director Port of Astoria (will speak)

OREGON TRANSPORTATION COMMISSION

Delegation: Mr. Ray Hammond, Manager, Astoria Area Chamber of Commerce, re Astoria-Camp Rilea Section of the Oregon Coast Highway

Date: July 19, 1977

Time: 10:00 a.m.

Name	City or Town	Capacity
Don Henry	Warrenton	Warrenton Chamber of Commerce
Charles Hanlon		Senator, District #1
Stewart E. Cameron	"	Spokesman - Hiway Comm.
Woodrow Wilson	"	Transportation Comm.
George R. Grove	Astoria	Director Port of Astoria
see list of speakers	& list provided	by Mr. Hammond

June 21 agenda

April 25, 1977

Mr. Ray Hammond, Manager
Astoria Area Chamber of Commerce
Port of Astoria Building
Astoria, OR 97103

Dear Ray:

This is in response to your letter of April 18 to Chairman Glenn Jackson stating that a delegation from Astoria will appear at the June 21st Transportation Commission meeting here in Salem at 1:30 p.m.

The meeting will be held in Room 122 (Conference Room) Transportation Building.

It is our understanding that you wish to discuss the Astoria-Camp Rilea Section of the Oregon Coast Highway.

If there is a change in the June Commission meeting date, I will let you know.

Very truly yours,

C. W. Read
COMMISSION SERVICES

CWR:fhm

cc Transportation Commission
Robert Purco
W. B. Klaboe
M. S. Coulter
E. S. Hunter
Max Kloke

Did not send original letter to Commission - only cc's were mailed.

Rec - from Stewart Cameron
7/19/57

FORM S-123 - 25M REVISED 8-56

COMMISSIONERS
BEN R. CHANDLER, CHAIRMAN
COOS BAY
CHAS. H. REYNOLDS, MEMBER
LA GRANDE
M. K. MC IVER, MEMBER
PORTLAND
H. B. GLAISYER
SECRETARY

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM

W. C. WILLIAMS
STATE HIGHWAY ENGINEER
FORREST COOPER
DEPUTY STATE HWY. ENGR.
C. W. ENFIELD
CHIEF COUNSEL

March 11, 1957

Mr. John Shepherd, President
Warrenton Chamber of Commerce
Warrenton, Oregon

Dear Mr. Shepherd:

Reference is made to your letter of November 14, 1956, directed to the State Highway Department, in which request is made for improvement of the intersection of Main Street with US 101 in Warrenton, in order to eliminate a hazardous condition which you state exists at this point.

An engineering investigation has been made of the conditions to which you refer and the Engineer reported the findings to the State Highway Commission at its meeting on February 28. According to this report, the primary problem at this intersection is that of protecting the vehicles that make a lefthand turn from US 101. To channelize the intersection so as to provide such protection is estimated to cost $11,700. The Engineer pointed out that according to present plans, the section of US 101 between Astoria and a point near Gearhart will be realigned within the next five years so as to entirely bypass the Warrenton (~~Skipanon~~) junction. When such improvement is completed, the problem at this intersection will be largely eliminated. By 1962

In the discussion of this matter, it was pointed out that some hazard does presently exist at the intersection. However, the cost to eliminate it would hardly be commensurate with the benefits received, partly in view of the fact that this section of highway will be realigned in the relatively near future. The matter was given very careful consideration by the Commission with the result that the Commission decided not to undertake the improvements at this time for the reasons stated.

Respectfully yours,

H. B. Glaisyer

Secretary
OREGON STATE HIGHWAY COMM.

HBG:esm

July 1959

PROPOSAL "C" ✓

The traffic volume on this proposed improvement will vary from a minimum of 2,650 vehicles per day to a maximum of 3,900 vehicles per day. Projecting this traffic ahead for the next 30 years, it is estimated that the average daily traffic will vary from 4,800 to 7,000 vehicles.

This proposed improvement calls for the expenditure of $4,908,884 for right of way and construction of 11.58 miles of improvement and new alignment. This proposed route has a distance savings of 4.89 miles over the present highway. The estimated annual cost for construction and maintenance of this improvement is $262,035.

The reduction in distance and improvement of alignment for this proposed construction results in a mileage element savings benefit of $1,276,978 and a time element savings benefit of $476,169, for a total user benefit of $1,753,147.

The ratio of user benefits to the total annual cost indicates that for every dollar spent on this project, the road user will receive $6.69 in benefits. ✓

Length of new Construction	11.58 miles
Reduction in Distance	4.89 miles
Reduction in Curvature	1292 degrees
Reduction in Rise and Fall	381 feet
Estimated Cost of Construction	$4,908,884
Estimated Annual Cost of Construction, Maintenance, etc.	262,035
Estimated Annual Value of Benefits to Users	1,753,147
Dollars of Annual Benefits for Each Dollar of Annual Cost	$6.69

92

the long-haul traffic by shortening the line some 4 miles. This 4 mile reduction would reflect a considerable saving (compared to the existing route) for the Warrenton to Astoria traffic.

Plan "C" would also be constructed between Smith Point and the existing highway near Warrenton (Point "K") on initial construction. This plan would give the most in benefits to the user public for the dollar spent. The through traffic would have a line that is slightly shorter than Plan "B" and the best of the plans presented herein. The Warrenton-Astoria traffic, which is as great as the through traffic, would have a mile less to travel (each way) than Plan "B". This would reflect a distance savings of better than 4 miles over Plan "A" and 5 miles over the existing highway each way. Persons commuting between Astoria and Warrenton would realize the greatest saving from the first stage construction of Plan "C". The round trip distance between downtown Warrenton and Smith Point, which is about 17 miles today, would be cut to a fraction over 7 miles.

The Planning Survey Section of the Traffic Engineering Division ran a benefit analysis for the first stage construction of Plans "A" and "C". The result of this analysis was:

Section	Total Construction Cost	Annual Cost	Annual Benefit	BQ
Proposal "A"	$2,778,778	$ 97,351	$ 481,245	4.94
Proposal "C"	$3,567,409	$192,304	$1,555,126	8.09

9947 9

ORIGNAL SIGNED
DUANE O. CHRISTENSEN

Salem, Oregon
April 20, 1977

Duane O. Christensen
Final Design Engineer

Ted Litchfield
Regional Operations Engineer

S. Unit, Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

As per your request and our telephone conversation on Monday, April 18, 1977, attached is one reduced size print on which grade lines have been shown for a 3 foot and a 6 foot raise in grade over the present proposed grade at the Skipanon River location.

A 3 foot raise in grade would require foundation strengthening at the toe of slopes for approximately 1,350 feet and an increase in length of structure of 12 feet. No additional right-of-way would be required nor would there be any additional environmental impacts over that of the original project. It is estimated that the additional cost for raising the grade 3 feet is $41,100, which includes engineering and contingencies. Of this cost, $17,000 is for the additional bridge length.

A 6 foot raise in grade would require foundation strengthening at the toe of slopes for approximately 1,850 feet and an increase in length of structure of 24 feet.

No additional right-of-way would be required as slopes would be steepened to 3:1 as required. No additional environmental impacts are foreseen. It is estimated that the increase in cost for the 6 foot raise in grade would be $34,000 for the structure and $68,500 for additional embankment and foundation strengthening for a total cost of $102,500 including engineering and contingencies.

DOC:az
cc: G. Potter
R. Ellison
F. Eriksen

8949

9

Salem, Oregon
April 4, 1977

ORIGINAL SIGNED BY
J. H. VERSTEEG

J. H. Versteeg
Road Design Engineer

Astoria-Camp Rilea
[redacted] Coast Highway
Clatsop County

Mr. E. S. Hunter
Deputy State Highway Engineer

Attached are a sketch map and a construction plan showing the intersection of the proposed Coast Highway and the Warrenton-Astoria Highway. We have studied the location to determine if a traffic signal is warranted and recommended with initial construction. Such a signal would cost about $28,000.

The Traffic Section has determined that capacity wise a signal is not warranted in the near future.

Region informs us there will be no school bus problems at the intersection. This will be a two lane facility with left turn refuges and excellent sight distance. If a signal were to be installed it would be the only one for some distance either way.

In view of the above discussion it is our recommendation that no signal be installed at the intersection. If you feel other than this, please advise.

[redacted] Chatfield

8949 9

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon
March 30, 1977

FROM: Fred Eriksen
Design Engineer Supervisor

SUBJECT: S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

TO: MEMO TO THE FILES

Appropriate treatment for the railroad grade crossing near the south end of the project has been discussed with Mr. Chidsey, Railroad and Utility Engineer.

Mr. Chidsey advises this should be a Type 1 (asphalt with guardrail) grade crossing with Automatic Gate Signals, No. 4 and Cantilever Flashing lights, No. 2B. Guardrail protection should be provided for the signal installation.

Mr. Chidsey will handle the crossing arrangements with the Railroad.

FE:az
cc: J. E. Chidsey

Verstieg
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FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon 97310

March 28, 1977

FILE:

FROM: L. E. George
Traffic Engineer

TO: D. N. Stoudenmeyer
Preliminary Design Supervisor

SUBJECT: Astoria-Camp Rilea Section
Oregon Coast Highway No. 9
Clatsop County

As requested, we have reviewed traffic data for the intersection of the Oregon Coast Highway No. 9 with the Warrenton-Astoria Highway No. 105 (Highway No. 9, M.P. 9.10) in Clatsop County. At the present time a traffic signal is not warranted in this location and the data indicates that this location will probably not meet traffic signal warrants in the near future.

L. E. George

L. E. George
Traffic Engineer

DW:rw

Signal $28,000
No School bus problem

1 Versteeg
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Scott
Swenson
Source

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Salem, Oregon
February 11, 1977

J. M. Verstoeg
Road Design Engineer

J. E. Boyd
Right of Way Engineer
BUILDING

48931 - Calloway
48932 - Jacobs
49492 - Dooley
S. Unit, Astoria-Camp Rilea
Section
Oregon Coast Highway
Clatsop County

Attached are 3 descriptions and an authorization covering additional R/W for the subject project.

We have also completed revising or cancelling 15 of the existing Files to reflect the existing design. These Files are listed on 2 separate "Revision Request" forms and should be delivered to your office today along with new prints of the R/W map.

It is our understanding that the Environmental Section is waiting for an updated relocation report which can now be prepared.

BY:

Floyd O. Scott
Right of Way Description Engineer

FOS:ms

Attach.

8949

9

Salem, Oregon
February 11, 1977

J. M. Verstoeg
Road Design Engineer

J. B. Boyd
Right of Way Engineer
BUILDING

48931 - Calloway
48932 - Jacobs
49492 - Dooley
S. Unit, Asteria-Camp Files
Section
Oregon Coast Highway
Clatsop County

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It is our understanding that the Environmental Section is waiting for an updated relocation report which can now be prepared.

BY: F

Floyd O. Scott
Right of Way Description Engineer

FOS:mg

Attach.

8949 ○ ⌒ 9

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION FILE:

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

February 8, 1977

FROM: Fred Eriksen
Design Team Supervisor

SUBJECT: S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

TO: MEMO TO THE FILES

In September of 1975, at a Value Engineering Workshop in Portland, a study team recommended substituting native sand for crushed aggregates in the shoulder area.

This proposal has been reviewed by the Region and Final Design and rejected for the following reasons:

1. The native sand on the coast is easily eroded by wind and water due to the fineness and uniformity of particles.

2. The sand would not be stable under the wheels of errant vehicles.

3. The use of grasses would help to stabilize the sand material, but would increase the amount of maintenance activity to control it.

FE:az
cc: C. O. Fredrickson

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Salem, Oregon
January 25, 1977

ORIGNAL SIGNED
DUANE O. CHRISTENSEN

Duane O. Christensen
Final Design Engineer

L. E. Goerge
Traffic Engineer

Sign Study Plans
Astoria-Camp Rilea, S. Unit
Oregon Coast Highway
Clatsop County

We have reviewed the sign study plans on the above named project.

Due to the fact of design changes, elimination of the left turn refuge at Dolphin Avenue and addition of a left turn refuge at Old Oregon Coast Highway, we feel that you will want to change your signing plans accordingly.

cc: J. W. Sheldrake

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Form 21-734-3030

OREGON STATE HIGHWAY DIVISION

FILE:

INTER-OFFICE CORRESPONDENCE

January 18, 1977
Salem, OR. 97310

G. Ramjoue

FROM: George Ramjoue', Project Coordinator
Environmental Section

SUBJECT: S. Unit, Astoria-Camp Rilea
Final EIS

TO: Floyd Scott
Right of Way Description Supervisor
Road Design

The Environmental Section is presently working toward the completion of the Final Environmental Impact Statement on the S. Unit, Astoria-Camp Rilea project. Because of some right-of-way changes since the release of the Draft EIS, an updated relocation report is required from the Right of Way Section. It is essential that the Right of Way Section receives an updated right-of-way map plus a description of right-of-way changes made since the release of the Draft EIS.

A preliminary analysis of the proposed design of the frontage road at the south end of the project indicates that no significant noise levels would be experienced by the homes which were originally going to be acquired as part of the project. Therefore, right-of-way descriptions may be made on the basis of the present project design.

GR:BW:ss

REFERRED TO

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Cole ____ Semple ____
Eriksen FEE ____ Watson ____
Heger ____ Wolfe ____
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BY FINAL DESIGN ENGINEER

R/W Completed 2-11-77

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Swenson ____
Savage ____
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FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, OR 97310

January 18, 1977

FROM: L. E. George
Traffic Engineer

TO: J. H. Sheldrake
Region 2 Engineer

SUBJECT: Sign Study Plans
Astoria-Camp Rilea-South Unit
Oregon Coast Highway
Clatsop County

There are attached eight copies of our sign study plans showing proposed sign installations on the above section.

Will you please review these plans in the usual manner and give us your comments and recommendations. Also, will you please submit two copies to the County and City for their review. They should note any suggestions for changes on one set of the plans, sign the plans in the spaces provided and return them to you for eventual return to this office.

May we have your response by February 10 so we may complete the plans at an early date.

L. E. George
Traffic Engineer

ELS:ds
Attachments

cc: J. H. Versteeg

REFERRED TO

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Eriksen		Watson	
Hager		Wolfe	

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BY FINAL DESIGN ENGINEER

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FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

January 13, 1977

Salem, Oregon

FILE: 4-1920

FROM: Gerald W. Wimer
REGION II CONSTRUCTION ENGINEER

SUBJECT: Northerly Intersection
S. Unit Astoria-Camp Rilea Sec.
Oregon Coast Highway

TO: Adrian Olson
PRELIMINARY DESIGN ENGINEER

The right of way, access, and traffic matters described in your December 7, 1976 letter have been reviewed by District Engineer Eldon Everton and the above signed. Mr. Everton's January 11, 1977 report is attached.

Mr. Everton is strongly of the opinion a left turn refuge should be constructed at this intersection. This office agrees particularly when you consider how we should sign directing northbound traffic to the City of Warrenton and Fort Stevens State Park.

With the refuge at this northerly intersection, it no longer becomes necessary to have one at Dolphin Road. The original plan for having a refuge at Dolphin Road was primarily based on an earlier AMAX proposal to have access from Dolphin Road. This is no longer the case with the AMAX property now being served from Jetty Avenue which is served by this northerly intersection. This just adds to the reasons why a refuge should be constructed at this time at the northerly intersection.

We should definitely purchase all of our future right of way and access needs from the Williamsons at this time. We should not leave this business access in the middle of this complex, high-speed intersection.

Mr. Everton thinks we should also acquire the home on the easterly side at this time. This could save another hearing in the future. This office recommends acquisition of that home if any portion of the property is needed at this time to construct the left turn refuge. Otherwise, this office has no objectionto your proposal to postpone the acquisition of that home until it is actually needed. It is doubtful that if we didn't need it at this time, we could demonstrate necessity of taking if this were an acquisition by condemnation.

Should there be anything further this office or Mr. Everton can add to this matter, please advise.

GWW/dea
Attach.
cc: Duane Christensen
Eldon Everton
Gary Inloes

Copy w/note To: Wimer Christianson a&d.

{ Layout R/W for ultimate 4 lanes w/refuge
Layout plan for channelization at this time. 1/18/76 a&d. (Eliminate refuge at Dolphin Rd.)

FORM 81-734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Astoria, Oregon 97103

January 11, 1977

FILE:

FROM: Eldon L. Everton
District Engineer
Astoria, Oregon

TO: Gerald Wimer
Region Construction Engineer
Salem, Oregon

SUBJECT: North Intersection - South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway - Clatsop County

You sent me a copy of A. D. Olson's letter to Mr. C. O. Fredrickson on the subject intersection. Since receiving the letter, I have had the opportunity to discuss it with the Clatsop County Commissioners, Warrenton City Manager, and the Chairman of the Clatsop County Highway Advisory Committee.

It was a unanimous decision that a left-turn refuge should be constructed at the North intersection. It was pointed out that the North Unit of the Astoria-Camp Rilea intersection was constructed without left-turn refuges at the intersection of Highway 101 and Marlin Avenue (Highway 105) and the intersection of Highway 101 and the Warrenton Connection. Since construction, a left-turn refuge has been constructed at the intersection of 101 and Marlin. It was only through the State Bond Projects that this was done as there had been a need for it for a considerable period of time. Presently, there is a need for a left-turn refuge at the intersection of 101 and the Warrenton Connection. The refuge is presently needed quite badly but when we will be able to get it and how it will be financed, is a problem. I am receiving much pressure from numerous individuals and organizations in regards to the need for a left-turn refuge at this location. With this past history, if we were to build the South Section and not build a left-turn refuge at the intersection of two State Highways, it would be a mistake and one that I feel we could not justify and explain to the citizens of this County.

Just because the present traffic does not warrant a left-turn refuge does not mean that when the new Section is built that a left-turn refuge will not be necessary. The present left-turn movement at this intersection is quite difficult due to the highway alignment and intersection configuration. With new construction, this will not be a problem. One block East of this intersection is Southeast Jetty Avenue. This will be the main access to the large industrial-zoned area that was once going to be the location of AMAX. It is just a matter of time before industry starts to use this and then the left-turn refuge movement from the Oregon Coast Highway at the subject intersection will be high.

There will also be left-turn movement from the Oregon Coast Highway from North-bound traffic at the subject intersection. It might prove to be more feasible to sign to Fort Stevens State Park at this intersection than the one at Perkins Road. If the subject intersection was signed for Fort Stevens State Park, the traffic could proceed on to the old Oregon Coast alignment to Ridge Road where they have a right-turn movement. Signing this was would alleviate the left-turn movement from the existing Oregon Coast Highway onto Ridge Road, which is presently causing considerable problems.

It appears that Brown & Root is coming to the Warrenton area and with this large industry, I am sure that there will be satellite types of industries. The area is growing, and if we were to construct a new Section of road where we know this and not build a left-turn refuge at the intersection of two State Highways, I feel that we would be making a major error. All the local people that I have been in contact with strongly feel that a left-turn refuge is necessary at this North intersection.

The question if we should only buy adequate right of way at this location for two lanes is another problem. This was also discussed with the people that I met with and their general consensus was if this would be the only area where right of way was not being purchased for four-laning, then they felt it would not be wise to leave this particular section, and that the right of way for the four-lane section be purchased at this time. It was strongly felt that adequate right of way would have to be purchased so that left-turn and deceleration lanes could be constructed at the time of the contract.

The property on which Williamson's garage is located should be purchased as the access that would have to be constructed if the business was left would not be safe.

I realize there has been some questions in regards to relocating Mr. Williamson's business; however, there are presently negotiations between the State, Clatsop County and City of Warrenton that will open up commercial property on the East side of the Oregon Coast Highway opposite the Warrenton Connection (Opposite the Shopping Center). I know that Mr. Williamson has been negotiating with the County to obtain some of their land for his business. If the access from the Oregon Coast Highway to the property on the East side is constructed, this would be an ideal location for Mr. Williamson's business and would alleviate the problem of trying to relocate his present business.

In summary, my feelings and all of those whom I have contacted are that left-turn refuges and deceleration lanes should definitely be a part of the construction project for the North intersection. Adequate right of way should be purchased so that this type of facility could be constructed. Mr. Williamson's business and present access should not be allowed to remain and all of the necessary right of way for four-laning should be obtained on the West side of the Highway. The necessary right of way should also be obtained on the East side of the Highway for the left-turn refuge and deceleration lanes and if this will be the only parcel that the right of way has not been purchased for four-laning on the project, it should be obtained.

ELE:sfv

CC: Ted Litchfield
Region Operation Engineer
Salem, Oregon

8947

4

Salem, Oregon
December 7, 1976

A. D. Olson
Preliminary Design Engineer

C. O. Fredrickson
Region 2 Engineer

S. Unit, Astoria-Camp Rilea Sec.
Oregon Coast Highway
Clatsop County

A review has been made of the revised intersection at the north end of the proposed contract.

The Traffic Section reviewed this intersection and by letter of 11/26/75 advised that no left turn refuge would be required. The Location Section prepared a design for the project to buy right-of-way for 4 lanes and construct 2 lanes at this time, borrowing material from the future 4 lane excavations to make the embankments. Approximately 10,000 yards of material would have been obtained from the cuts immediately north of this intersection.

In the northeast quadrant there is a house which would be required for the 4 lane section which has been estimated at $50,000. In the northwest quadrant there is a property that consists of a house and small business (a garage and body shop). The 4 lane taking could be laid out to miss the buildings but would require taking about half of the customer parking and a revision in access would be necessary. Dave Terbell had indicated that our proposed taking and access revision would put them out of business and coult probably cost us $50,000.

A review of the plans shows that it would be possible to build our 2 lane section through this area without acquiring either of these properties and borrow the 10,000 yard of material from either of two suggested sources at a saving of possibly $80,000. At such time as 4 lanes might be constructed the material to be excavated would presumeably still be required and the property could be acquired at that time with only the normal increase in value.

The only apparent drawback would be that the access to the property (which is currently in the middle of the curve connecting the old and new highways) would be in the radius of the revised connection. Terbell's April, 1975, study of this indicates that the owner resisted a plan to move this approach westerly about 100 feet since that plan wiped out his business and left him with only a residential property. He apparently felt his present approach should be safe with only that useage and that he didn't want his driveway across his lawn area.

Versteeg
Olson
Scott
Swenson
Savage
Trout

RECEIVED
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ROAD DESIGN SECTION

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Please consider the attached plan with the existing right-of-way shown in red and the proposed construction colored. This would appear to be appropriate under today's conditions. The approach to the garage should be moved westerly as far as possible, as previously considered by your locator. If the business is left intact this should be acceptable to the owner.

Your review and comment would be appreciated.

ADO:az
Attachment
cc: J. B. Boyd

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon 97310

November 26, 1975

FILE:

FROM: L. E. George
Traffic Engineer

TO: Victor D. Wolfe
Location Engineer

Attention: Don Bedford

SUBJECT: Left-turn Refuge
Oregon Coast Highway No. 9
at Warrenton-Astoria Hwy. No. 105
Highway No. 9 M.P. 7.53
Clatsop County

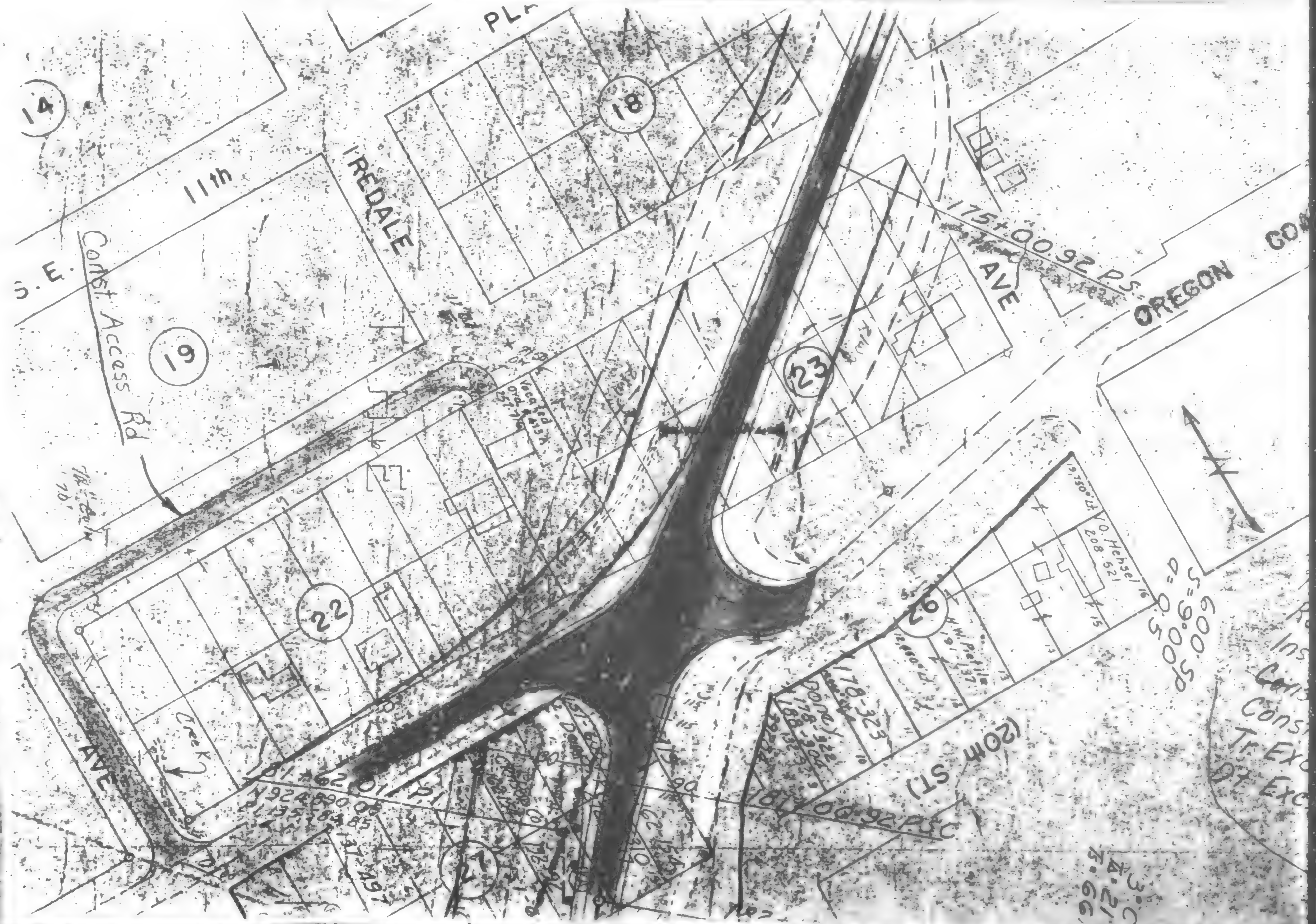
We have reviewed the existing traffic conditions on the Oregon Coast Highway No. 9 at its junction with the Warrenton-Astoria Highway No. 105 (Hwy. No. 9 M.P. 7.53). A 16-hour manual traffic count which was performed at this location showed that less than one percent of the southbound coast highway vehicles attempted to make the subject left turn. The accident history at this location showed that in the last 3 1/2 years there have been no reported accidents involving left-turn vehicles at this intersection.

It is our opinion that a left-turn refuge is not presently needed at the subject intersection. It would require a significant change in the traffic movements at this intersection to require a left-turn refuge and at this time we see no reason to expect such a change.

L. E. George
Traffic Engineer

DW:rj

REFERRED TO
Bedford
By Location Engineer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11th
S. E.
IRÉDALE
Comst. Access Rd
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23
175+00.92 P.S.
AVE
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Creek
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N 24°00'00" E
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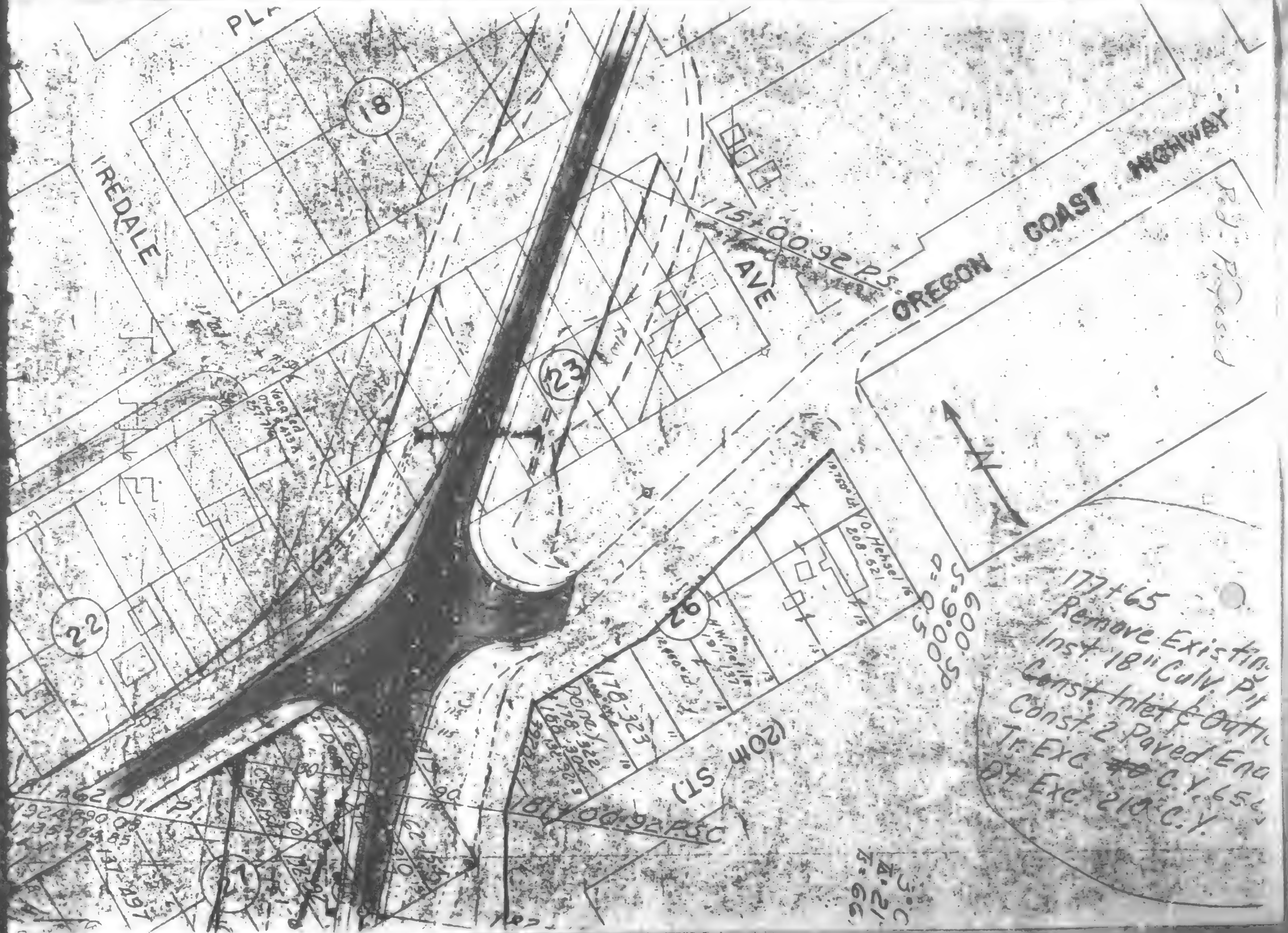
IRÉDALE
AVE
OREGON COAST HIGHWAY
20th ST)
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22
21
177+65
Remove Existing
Inst. 18" Culv. Pi
Const. Inlet & Outl
Const. 2 Paved End
Tr. Exc. 80 C.Y. 65
Bk. Exc. 210 C.Y.

8949

PRO 6-2

November 5, 1976

TO: E. L. Green, Division Administrator
Federal Highway Administration

'NAL SIGNED BY
D. E. SWAN

FROM: L. M. Gulley
Program Management Engineer

SUBJECT: Study Report
Project No. RF-115(24)
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway (FAP 2)
Clatsop County

Enclosed for your information is a copy of the study report for the subject project to aid you in your consultation with the Oregon State Highway Division during preparation of the final EIS.

Included with the study report are the following documents:

Topic	No. of Copies
Public Hearing Transcript	1
Public Hearing Documentation (ODOT)	1
R[illegible]-of-way Report with Relocation Study and Plan	1
Detail Map (Scale 1"=100')	1
Profile	1
Typical Sections	1

JLG:dpy

Enclosures

cc: H. S. Coulter
F. E. Tarvin
Gary Potter
J. H. Verstegg
W. J. Hart (Bridge)
D. E. Swan
H.. Wekerlig

8949

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

DATE October 12, 1976

TO E. S. Hunter
Deputy State Highway Engineer

FROM John R. Oakes
Assistant R/W Engineer

SUBJECT File 40828
S. Unit, Astoria-Camp Rilea
Oregon Coast Highway
Clatsup County

The original and two copies of an "Information for Grant or Indenture of Access" form are enclosed for your approval. Information on this form is based upon a request from the State for the indicated revision of access control.

This property is located 150' south of Perkin's Road. Access control was purchased in 1967.

The State has requested this indenture to move the granted access away from the property line.

Our engineers have checked this revision and find that it will not affect the safety and use of the highway.

NOTED
E. S. HUNTER

JRO:ha

Att.

RECEIVED
STATE HWY ENGR
OCT 12 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sgn | Act | File

INFORMATION FOR GRANT OR INDENTURE OF ACCESS

OFFICE USE ONLY
FA R/W Proj. No.
FA Const. Proj. No.

Date October 4, 1976
File No. 40828
Section South Unit - Astoria-Camp Riles
Highway Oregon Coast
County Clatsop

1. Original Grantors: A. & H. Sabey

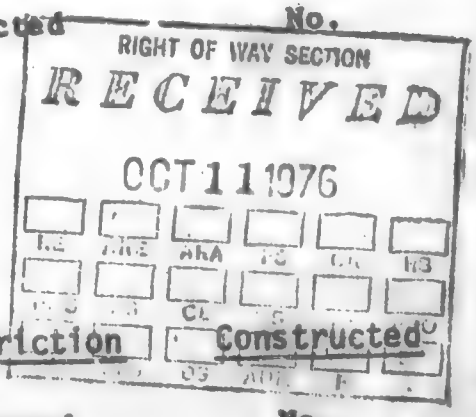
2. Present Owners: Same

3. Address of Present Owners: P. O. Box 193, Seaside, Oregon 97138

4. Are deed copies attached which will complete chain of title? No.

5. Access Point to be Canceled:

Station	Side of Highway	Width	Use Restriction	Constructed?
296+45	East	35'	Unrestricted	No.



6. Access Point to be Granted:

Station	Side of Highway	Width	Use Restriction	Constructed
296+65	East	35'	Unrestricted	No.

7. Reason for Change of Access: Original access point was so near to property line that access could not be constructed.

8. Will change affect safety or use of highway traffic capacity? No. Explain on reverse.

9. Filing fee of $5 is enclosed No. . Fee is waived X . Road Approach Permit is attached No. .

10. State will construct No. Estimate of cost and check in amount of $ ---- attached hereto. Descriptions are attached covering additional right of way to be deeded by owner to the State N/A .

RECOMMENDED:

Resident Engineer — Date

Harold Kimes — 10-6-76
Region Engineer — Date

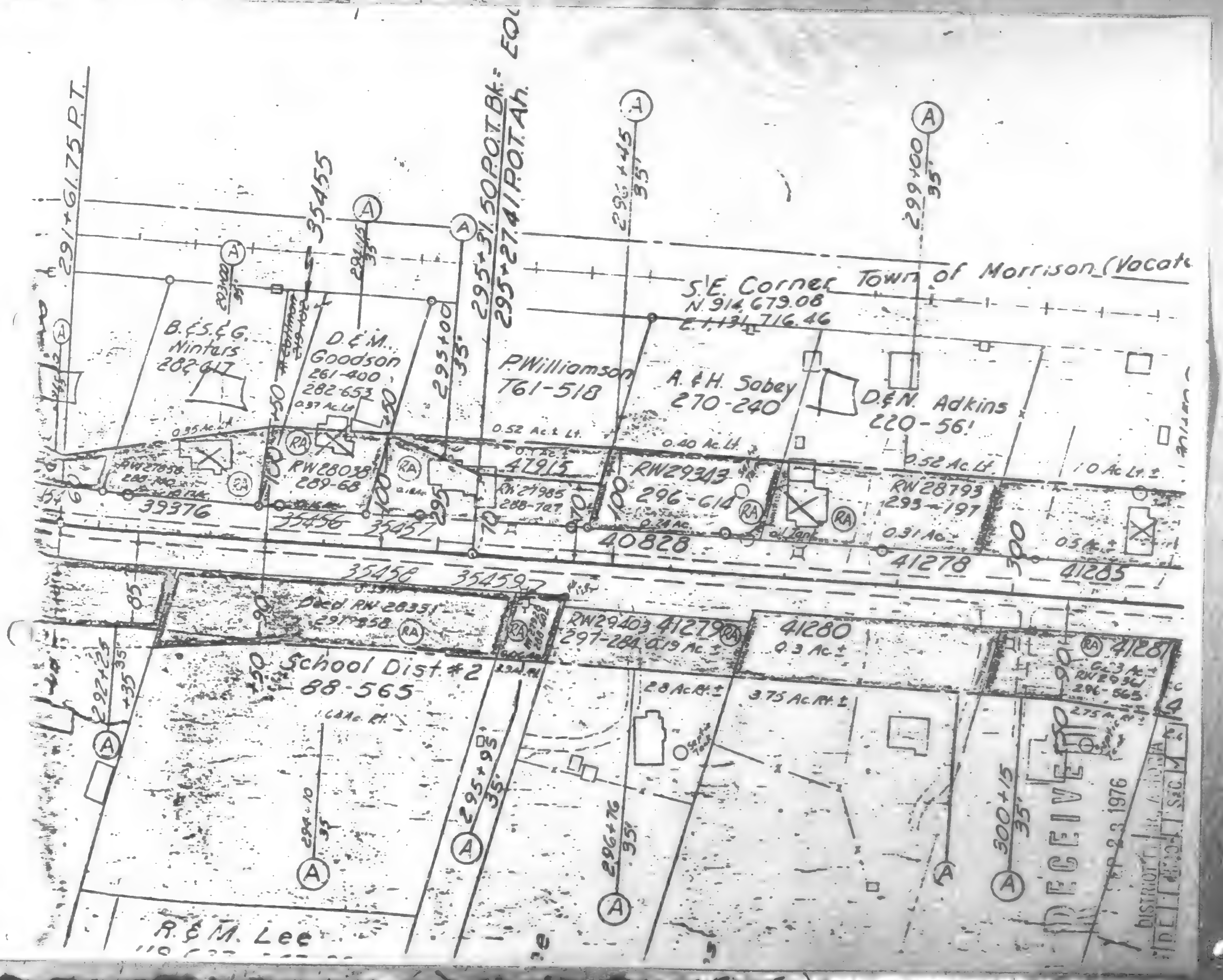
John R Oakes — 10-11-76
Right of Way Engineer — Date

APPROVED:

E J Kuntz — 10-15-76
Asst. Deputy State Highway Engineer — Date

Title — Date
FEDERAL HIGHWAY ADMINISTRATION

E-792 Rev. 10-17-72
Orig. to R/W Engineer


291+61.75 P.T.
35455
295+27.41 P.O.T. Ah.
295+31.50 P.O.T. Bk.
299+00
S.E. Corner Town of Morrison (Vacat
N. 914 679.08
E. 1 131 716.46
B.F.S.E.G. Ninters 282-611
D.E.M. Goodson 261-400 282-653
P. Williamson 761-518
A.E.H. Sobey 270-240
D.E.N. Adkins 220-561
RW28038 269-68
RW29343 296-614
RW28793 293-197
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Deed RW 28351 291-358
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41281
RW29511 296-565
School Dist #2 88-565
R.E.M. Lee
RECEIVED
SEP 23 1976
DISTRICT ENGINEER

8949

9

FORM 61-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

October 5, 1976

FROM: Frank E. Terpin
Location Engineer

SUBJECT: Astoria-Camp Rilea Section, So. Unit
Oregon Coast Highway
Clatsop County

TO: C. O. Fredrickson
Regional Engineer

The attached data on the subject project is the result of our study of the request by Mr. R. K. Bish as furnished us by Mr. Wimer.

We do not recommend that the suggested mainline revision be made; rather that a wall be constructed and the alignment of the frontage road be revised as proposed in Alternate #3 of Mr. Hackleman's letter of 9-23-75.

As you know, an ID Team #1 meeting was held to discuss the project and that the realignment of the frontage road and construction of the retaining wall was approved.

The information for the revision has been passed along to Road Design for incorporation in the plans.

Attachment

FET:mc

cc J. H. Versteeg (w/att)
Gary A. Potter "
L. W. Rulien "
W. J. Hart "

REFERRED TO

Beard — Reed
Cole — Semple
Britson — Watson
Hager — Wolfe
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

1 Versteeg
2 Olson
3 Peterson
Scott
Swenson
Sauge
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RECEIVED
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ROAD DESIGN SECTION

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Requires Approval ☐
Receiver Keep ☐
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FORM 81.734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

September 23, 1976

FROM: W. N. Hackleman
Location Design Engineer

SUBJECT: S. Unit, Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

TO: Frank E. Terpin
Location Engineer

We have completed our studies relative to Mr. Wimer's memo to the hearing record regarding a question Mr. R. K. Bish posed at the informal hearing on subject section.

Mr. Bish's question was, "Why don't you move the new highway away from my home so my garage and my neighbors' homes would not need to be taken?"

Mr. Wimer furnished a map with a tentative alignment for accomplishing this. Our studies included:

1. Mr. Wimer's proposed alignment.
2. A modification of Wimer's line.
3. A retaining wall and change on the frontage road.

Following are the results of our studies:

1. The additional cost for this proposal would be $60,740. The majority of these costs are for railroad spur relocation and encroachment. There would be $57,715 savings in right of way costs and $3,215 additional cost for the project.

2. The modified line change would add $54,500 to the project costs, with a right of way savings of $57,715 or a net savings of $3,215.

3. The retaining wall and frontage road relocation would cost $56,900 extra, with $57,715 in right of way savings or a net savings of $845.

Each of the above designs would save one house from being displaced.

Subsequent to our studies we received information of a new house (Johnson) that is within the right of way taking and did not appear on our mapping. This home would still be displaced by our modified designs. However, it appears, through a cursory examination, that this home could also be saved by modifying our retaining wall proposal.

Due to several undesirable design elements encountered in Mr. Wimer's line change, such as a flatter angle at the railroad crossing, the relocation of the railroad spur and added railroad encroachment, we recommend that the retaining wall concept be included in the final design on this project, with the wall modified to save the Johnson home if possible.

DB:mc

cc Design Unit File

8949

PRO 6-2

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

STATE HIGHWAY BUILDING, SALEM, OREGON 97310

October 5, 1976

TO G. L. Green, Division Adm.
Federal Highway Administration

FROM for FLL
L. W. Rulien
Program Management Engineer

SUBJECT Minor Program Change
Archeological Salvage

We request your approval of a minor program change to add archeological salvage including any or all of the three phases of work set forth in FHPM 7-7-4 (PPM 20-7) to the following listed projects.

It is understood your approval of the preceding request will result in authorization and obligation of additional federal funds, as tabulated, for each project. Reimbursement will be claimed on an actual cost basis.

U of O No.	Project No.	Requested Authorization Date	Project Est. Cost	Federal Funds
001	JOP-95(3)	Jan. 17, 1976	$ 495.50	$ 425.00
002	RF-UP-29(26)	Jan. 19, 1976	4,009.00	3,439.00
003	RF-187(17)	Mar. 1, 1976	16,000.00	13,728.00
004	RS-15-107(2)	Mar. 3, 1976	658.00	564.00
005	ROS-000S(3)	Mar. 4, 1976	526.00	451.00
006	I-205-7(2)303	Mar. 3, 1976	1,235.00	1,059.00
007	RS-01-109(1)	June 20, 1976	461.30	395.00
008	RS-23-122(1)	June 20, 1976	468.50	401.00
009	US-TQS-265(4)	June 24, 1976	16,540.00	14,191.00
010	RF-29(24)	Mar. 12, 1976	460.00	394.00
011	RS-599(1)	Aug. 30, 1976	370.66	318.00
012	RF-115(24)	Aug. 30, 1976	370.68	318.00
017	RS-30-110(1)	Sept. 7, 1976	370.00	317.00
018	RS-117(2)	Sept. 7, 1976	345.00	296.00

Enclosed are two copies each of form "Archeology Authorization" for each project for your approval. Upon approval please return one approved copy for our files.

We further request authorization to proceed with work by the U of O for each project on the date shown in the preceding tabulation.

JLG:bb
Enc.

cc: Gary Potter
J. E. Swan

1. Elk River – Port Orford JcP-9.5(3) Hot ~~Curry~~ 8325
2. Slater Creek – Mystic Crake RF-DP-29(6) 8310
3. Buchanan – Cecil Reservoir Harney ~~Cecil~~ Con 21-4 Cecil Con
4. Head Road – Airport Road Jackson Con 21-8 Jackson
5. Statewide Roadside Obstacles Projects Dra 10-1 Sp.
6 Columbia River – Lake Road Multnomah & Clackamas Con 21-1 I-205 SP
7 Powder River (Phillips) Bridge Baker RS-01-109(1) 8400
8 Malheur River (Russell) Bridge Malheur RS-23-122(1) 8349
9 Airport Rd. – Lancaster Dr. Marion
10. Remote Section Coos County Con 21-4 Con Bay Roadbed
11 Skipanon River (Warrenton) Br. Clatsop Mai 14-1-1 SP
12 S. Unit Astoria – Camp Rilea Con 21-4 101 – Clatsop
13 N. Fk. Cold Springs Ct. Umatilla RS-30-100 8450
18 Fifteenmile Creek Bridge Wasco Con 19-1 F.

Please make copies as funds are invested
Yellow Con 9-3

8949

September 24, 1976

Warrenton Chamber of Commerce
Warrenton, Oregon 97063

Gentlemen:

We are moving forward on the South Unit, Astoria-Camp Rilea project. The hearing was held August 12, 1976. When the final Environmental Impact Statement is approved, we can proceed with the necessary right-of-way acquisition.

The project is in the Six-Year Program for construction in Fiscal Year 1979; however, due to financial difficulties, the Transportation Commission only approved the first two years of the Six-Year Program (Fiscal Years 1977 and 1978). This program will be re-evaluated if our financial situation improves, either through passage of Ballot Measure No. 8 in November or new legislation. In the meantime, you may be assured that all developmental work on the project is proceeding.

Sincerely,

F. B. Klaboe
Chief of Operations

bc: R. A. Burco
H. S. Coulter
L. W. Rulfen
C. O. Fredrickson

LWR:BLG:dpy srb

Warrenton Chamber of Commerce

WARRENTON, OREGON

August 19, 1976

Oregon State Highway Division
Department of Transportation
Salem - OREGON 97310

Re: Public Hearing - Smith Point-Camp Rilea Highway 101 Realignment 8-12-76

Gentlemen:

The highway committee of the Warrenton, Oregon Chamber of Commerce has just learned of an additional delay in the Smith Point-Camp Riles highway project.

It is inconceivable that there could be so many delays for so many years (1955 to 1976) on a project of such vital importance to the traveling public.

We hope the information we have received is in error - if not, we strongly urge this project schedule be given top priority and accomplished without further delay.

Sincerely,

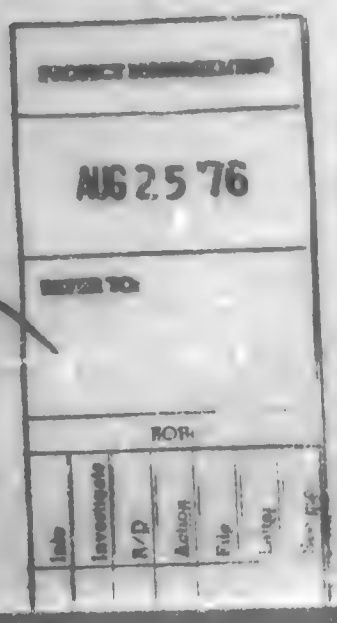
WARRENTON CHAMBER OF COMMERCE

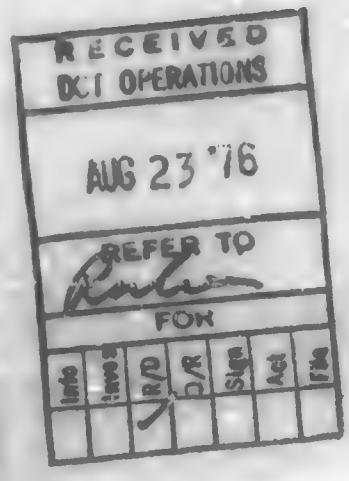
Donald Henry
Donald Henry, President

E.R. Baldwin
E.R. Baldwin
Highway Committee

Stewart E Cameron
Stewart E Cameron
Highway Committee

Encl.
cc





FORM S-122 - 25M REVISED 9-56

COMMISSIONERS
BEN R. CHANDLER, CHAIRMAN
COOS BAY
CHAS. H. REYNOLDS, MEMBER
LA GRANDE
M. K. McIVER, MEMBER
PORTLAND
H. B. GLAISYER
SECRETARY

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM

W. C. WILLIAMS
STATE HIGHWAY ENGINEER
FORREST COOPER
DEPUTY STATE HWY. ENGR.
C. W. ENFIELD
CHIEF COUNSEL

March 11, 1957

Mr. John Shepherd, President
Warrenton Chamber of Commerce
Warrenton, Oregon

Dear Mr. Shepherd:

Reference is made to your letter of November 14, 1956, directed to the State Highway Department, in which request is made for improvement of the intersection of Main Street with US 101 in Warrenton, in order to eliminate a hazardous condition which you state exists at this point.

An engineering investigation has been made of the conditions to which you refer and the Engineer reported the findings to the State Highway Commission at its meeting on February 28. According to this report, the primary problem at this intersection is that of protecting the vehicles that make a lefthand turn from US 101. To channelize the intersection so as to provide such protection is estimated to cost $11,700. The Engineer pointed out that according to present plans, the section of US 101 between Astoria and a point near Gearhart will be realigned within the next five years so as to entirely bypass the Warrenton (Skipanon) junction. When such improvement is completed, the problem at this intersection will be largely eliminated. 8/ 1962

In the discussion of this matter, it was pointed out that some hazard does presently exist at the intersection. However, the cost to eliminate it would hardly be commensurate with the benefits received, partly in view of the fact that this section of highway will be realigned in the relatively near future. The matter was given very careful consideration by the Commission with the result that the Commission decided not to undertake the improvements at this time for the reasons stated.

Respectfully yours,

H. B. Glaisyer

Secretary
OREGON STATE HIGHWAY COMM.

HBG:esm

8947

9

FORM E-20

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 7, 1976

To: C. O. Fredrickson
Regional Engineer
Salem

SUBJECT: Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

We must necessarily react to the evaluations of the FHWA about our use of the techniques of soils and geology in performing our design and construction.

In reviewing the exploration which has been done for the subject project, it is seen that the strength of the foundation under the fills has been evaluated only by penetration and moisture content tests.

Such tests are sufficient to show the necessary depth of sub-excavation, but they do not clearly show the need for it or establish design parameters for alternatives.

Therefore, it is suggested that some additional foundation testing should be done on the subject project to verify the design being prepared in order to avoid criticism by specialists who may review it.

In-place vane shear tests are the most logical to supplement existing information since they can be made in the swampy areas with portable equipment which we have. Laboratory shear tests could be made on shelby tube samples, but these would be hard to obtain by hand methods and the soft and wet soils are extremely susceptible to disturbance at every stage of handling.

Existing information shows that the only location where shear strength appears to be critical is between stations 181 to 188, where the proposed fill will be more than 12-feet height. Vane shear tests at two foot intervals down through the soft soil at about four locations would be sufficient. Standard AASHO Designation T223 should be followed.

Dan Gano has borrowed the vane shear device at the moment. If you like, I'll arrange with him for time for you to use it.

Frank Terpin
Location Engineer

by F. W. Yarbrough
Soils & Geology Engineer

FWY:af

cc: J. H. Versteeg
W. R. Fretwell
Bud Mann

8949

UNIVERSITY OF OREGON

Museum of
Natural History

EUGENE, OREGON 97403
telephone (code 503) 686-3053

September 2, 1976

Pieter Dykman
Oregon Department of Transportation
Highway Division
Salem, Oregon 97310

Dear Mr. Dykman:

The archaeological survey of the Astoria-Camp Rilea Section, South Unit, Oregon Coast Highway, has been completed. The survey was conducted by Richard M. Pettigrew, Survey Archaeologist for Highways, Museum of Natural History, on August 31, 1976.

No evidence of archaeological sites was discovered. Therefore, we plan no further archaeological work there, and have no objections to the planned highway construction in the right-of-way.

We would like to emphasize, however, that the vegetation in the new section of the right-of-way made it very difficult to see the ground. Furthermore, it is very probable that topographic and vegetational changes in the past 12,000 years have been significant as a result of climatic and sea-level fluctuations. Consequently, even though the area does not appear favorable for location of aboriginal sites, it is possible that construction activities may uncover archaeological sites that escaped notice during the ground survey. We recommend that vigilance for such sites be maintained during clearing and construction, and that we be notified in the event of a discovery.

A final, detailed report will be forthcoming.

Sincerely,

David L. Cole

David L. Cole
Curator of Anthropology

DLC:rb

cc: R.M. Pettigrew

RECEIVED
STATE HWY ENGR
SEP 13 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

8949

Salem, Oregon
August 30, 1976

ORIGNAL SIGNED
DUANE O. CHRISTENSEN
Duane O. Christensen
Final Design Engineer

C. O. Fredrickson
Region 2 Engineer

Astoria-Camp Rilea
Oregon Const Highway
Clatsop County

On the Astoria-Camp Rilea Project we are planning to construct an access road to the First Presbyterian Church, from the existing county road. We will need levels and cross-sections in this area to do this.

Enclosed is a print of the area that cross-sections are needed.

cc: Lyle M. Watson

8749

August 18, 1976

Mr. Roger L. Bouse
Secretary-Treasurer
Clatsop County Oregon
Central Labor Council
P. O. Box 55
Astoria, OR 97103

860-H

Dear Mr. Bouse:

This is in response to your recent letter protesting delay of construction on the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway.

Rescheduling the construction of this section from Fiscal Year 1976 to Fiscal Year 1979 was for two reasons:

1. The Transportation Commission, faced with heavy inflation and declining State highway user revenues, carefully analyzed the work necessary to preserve the existing State highway system and the aggregate of requested and much needed major highway improvements, and concluded that preservation of the existing system should have first priority. They have directed that from one-third to one-half of the construction funds available shall be dedicated to overlays and bridge replacements needed to preserve the integrity of the existing system. The remaining funds will be dedicated to major construction improvements.

2. Completion of the preliminary engineering and purchase of rights-of-way on this project will require some 16 months to finish, under the most optimistic conditions. Under these circumstances, the project cannot be ready for contract sooner than early in Calendar Year 1979.

A design hearing was held in the Warrenton High School Building, Thursday, August 12, 1976. The purchase

of rights-of-way can begin soon, following formal approval of the project by the Transportation Commission and the Federal Highway Administration. We intend to proceed with those activities necessary to have the project ready for contract so that in the event money becomes available sooner than we anticipate, there will be a minimum delay in getting the work under way.

We agree that the project will greatly enhance the safety and vehicular capacity of the section, and hope this brief explanation will clarify the reasons for delaying the project.

Very truly yours,

E. S. Hunter
Deputy State Highway Engineer

ESH:ja

bc H. S. Coulter
Frank Terpin
L. W. Rulfen (enc.)
C. O. Fredrickson "

8-13

Clatsop County Oregon Central Labor Council

AFFILIATED WITH THE AFL - CIO AND OREGON STATE LABOR COUNCIL, AFL - CIO

Meets First and Third Monday Nights
Except Holidays at Labor Temple

ASTORIA
OREGON

P. O. BOX 55 • PHONE FA 5-4251

July 30, 1976

Oregon Transportation Dept.
Salem, Oregon 97302

Dear Sirs:

We were informed of your intention of again delaying the widening and straightening of Highway 101 from Astoria to Camp Rilea.

The residence of this great state as well as guests from other states who are persuaded to visit our state and our beautiful coast by your department, should not be subjected to this dangerously narrow and crooked road with its hazardous volume of traffic any longer.

We of the Clatsop County Oregon Central Labor Council would urge you to reconsider your decision on delaying this project.

Sincerely,

Roger L. Bouse

Roger L. Bouse
Sec-Treas.

RECEIVED
AUG 10 1976
LOCATION
SECTION

RECEIVED
STATE HWY ENGR
AUG 9 '76
REFER TO
FOR
Info | Issues | R/D | D/R | Sig | Act | File
X

NOTED
W. H. TEBEAU
8/11/76

REFERRED TO
Tebeau
By Location Engineer
Pls R/D

E&H

PRINTED ON UNION MADE PAPER

8949

ROBERT W. STRAUB
GOVERNOR

STAFFORD HANSELL
Director

EXECUTIVE DEPARTMENT

AN EQUAL OPPORTUNITY EMPLOYER

August 13,

South Unit Astoria-Camp
Rilea Section
Oregon Coast Highway (US 10
Clatsop County

INTERGOVERNMENTAL RELATIONS DIVISION

240 COTTAGE STREET S.E. • • • • SALEM, OREGON 97310

August 11, 1976

L. W. Rulien
State Highway Division
207 State Highway Bldg.
Salem, Oregon 97310

cc:
G. L. Green, FHWA
E. S. Hunter
R. L. Schroeder
J. H. Versteeg
Gary Potter
G. N. Hopkins, CO-CITY
D. E. Swan
B. L. Gifford
C. O. Fredrickson
E. L. Everton

Dear Mr. Rulien:

Re: S. Unit, Astoria-Camp Rilea Sect.
PNRS #7606 4 1140

Thank you for submitting your draft Environmental Impact Statement for State of Oregon review and comment.

Your draft was referred to the appropriate state agencies. The Department of Agriculture, the Department of Fish & Wildlife, the Division of State Lands and the Department of Land Conservation and Development offered the enclosed comments which should be addressed in the preparation of your final Environmental Impact Statement.

We will expect to receive copies of the final statement as required by Council of Environmental Quality Guidelines.

Sincerely,

William H. Young
Administrator

WHY:lg

Enclosures

RECEIVED
AUG 13 1976
Office of
Assistant State Highway Engineer

NOTED
R L SCHROEDER

BEN GIFFORD
6-29-76

PROJECT
AUG 12 '76
REFER TO:
FOR
Info | Investigate | R/D | Action | File | Letter | Sig. me

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

LOCAL GOVERNMENT RELATIONS DIV
JUL 8 1976

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - -

REMARKS

We support the draft environmental impact statement of Oregon State Highway Division as prepared. This section of U.S. Highway 101 is subjected to heavy commercial and recreational traffic often creating severe congestion resulting in extremely dangerous situations.

Highway 101 in this section of Clatsop County serves as an economic lifeline for Astoria, Seaside and other communities.

This project should be given high priority by the Oregon State Highway Division.

Agency Agriculture By Don McKenna 7/7/76

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

(X) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - - -

REMARKS

The following areas of concern need to be made a part of the project during construction:

1. In-stream work to be during summer months (June 15-September 15).
2. Berms and/or dikes be adequately protected to prevent turbidity from entering waterways.

Agency Fish & Wildlife By Norman Behrens
ENVIRONMENTAL MANAGEMENT SECTION 7/26/76

OREGON PROJECT NOTIFICATION AND RE[V]IEW SYSTEM

STATE CLEARINGHOUSE

AUG 2 1976

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

RECEIVED
JUL - 2 1976
DIVISION OF STATE LANDS

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

(xx) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

- - - - - - - - - -

REMARKS

The Department of Fish and Wildlife recommendations for mitigation mentioned on page 39 of the draft should be included in the final EIS.

If the project would require the removal, fill or alteration of 50 cubic yards or more of material within the banks of a waterway, we urge the applicant to apply for state fill or removal permits well in advance of construction deadlines to prevent unnecessary project delays. Specific information on the need for permits may be obtained from the Division of State Lands' office at 1445 State Street, Salem, OR 97310. Phone 378-3805.

Thank you for the opportunity to comment on this project.

Agency Lands By Jan. Haley

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

DEPARTMENT OF
LAND CONSERVATION
AND DEVELOPMENT

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

JUL - 6 1976

SALEM

PNRS STATE REVIEW

Project #: 7606 4 1140 Return Date: JUL 23 1976

ENVIRONMENTAL IMPACT REVIEW PROCEDURES

1. A response is required to all notices requesting environmental review.
2. OMB A-95 (Revised) provides for a 30-day extension of time, if necessary. If you cannot respond by the above return date, please call the State Clearinghouse to arrange for an extension.

LOCAL GOVERNMENT RELATIONS DIV

JUL 16 1976

ENVIRONMENTAL IMPACT REVIEW
DRAFT STATEMENT

( ) This project does not have significant environmental impact.

( ) The environmental impact is adequately described.

( ) We suggest that the following points be considered in the preparation of a Final Environmental Impact Statement regarding this project.

( ) No comment.

REMARKS

Agency LCDC By Dorma Hopp for John Eastaford

LOCAL GOVERNMENT RELATIONS DIV
JUL 16 1976

Land use decisions on the proposed alternatives and their related land use implications must be coordinated and consistent with the Clatsop County comprehensive plan and efforts to update the plan (i.e. the Clatsop County compliance schedule and work program for reaching compliance with Statewide Land Use Goals.

Consideration of the relationship between the Statewide Land Use Goals, particularly Transportation and Open Space, Historical and Natural Resources, and the alternatives should receive special attention. In addition, through the process for selecting an alternative every effort should be made to use recognized citizen and agency involvement programs established by the local jurisdiction in accordance with the Statewide Land Use Goals.

2119

Astoria, Oregon
Daily Astorian
(Cir.D.8,420)

JUL 2 8 1976

NOTED
H. S. COULTER

Allen's P. C. B. Est. 1888

Chamber opposes 101 road work delay

By GARY CONKLING
Of The Daily Astorian

A resolution opposing a two-year delay in widening and straightening Highway 101 from Astoria south to Camp Rilea was passed this morning by the executive board of the Astoria Area Chamber of Commerce.

Roy Hammond, chamber manager, said the resolution calls for an all-out effort to convince the Oregon Transportation Dept. to reschedule the construction with a higher priority.

He indicated he wasn't sure how much sooner the project could be done realistically considering the DOT's financial straits, but said, "Any change forward would help."

Passage of the resolution comes in response to the DOT's announcement this week that the project has been delayed because of a change in emphasis by state highway officials.

The change of emphasis is away from constructing new large, costly projects and toward smaller maintenance projects.

Hammond and chamber members feel the Highway 101 project deserves a higher priority than it now has because the volume of traffic exceeds the state's standard for a two-lane highway.

Chamber members also noted travel on the highway is perilous because of large sweeping 'S' curves, including one known as "Dead Man's Curve."

A couple of chamber members said state Highway Division officials had given a firm commitment to start construction on the Highway 101 project this summer.

However, Hammond said he wanted to double-check that before the point was used in trying to persuade the DOT to change its priorities.

The action decided on by chamber board members is to seek a unified front along with chambers of commerce in Seaside and Warrenton.

"We want the state to know our action is solidly backed by those directly affected," Hammond said.

The chambers, he added, will ask Clatsop County's legislative delegation to help and they may mount a petition drive.

8949

9

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon
July 27, 1976

FROM: A. D. Olson
Preliminary Design Engineer

TO: MEMO TO THE FILES

SUBJECT: Proposed project in the vicinity
Astoria Airport.South Unit,
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

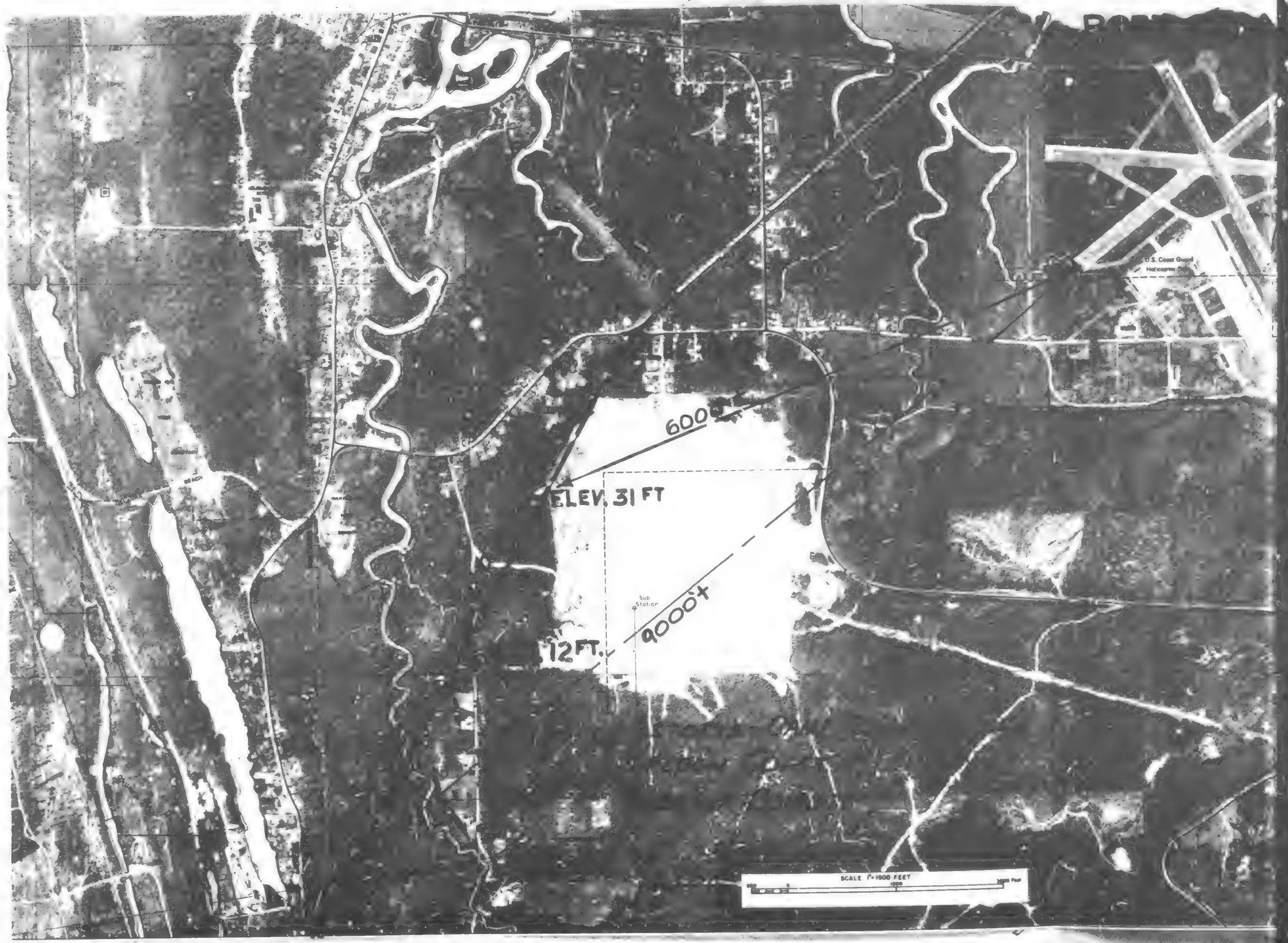
The subject project has been checked for possible conflict with FAA Standards Part 77.13 (Construction or Alteration requiring notice). As there appears to be no conflict with navigable airspace (see attached mosaic) a notice will not be required.

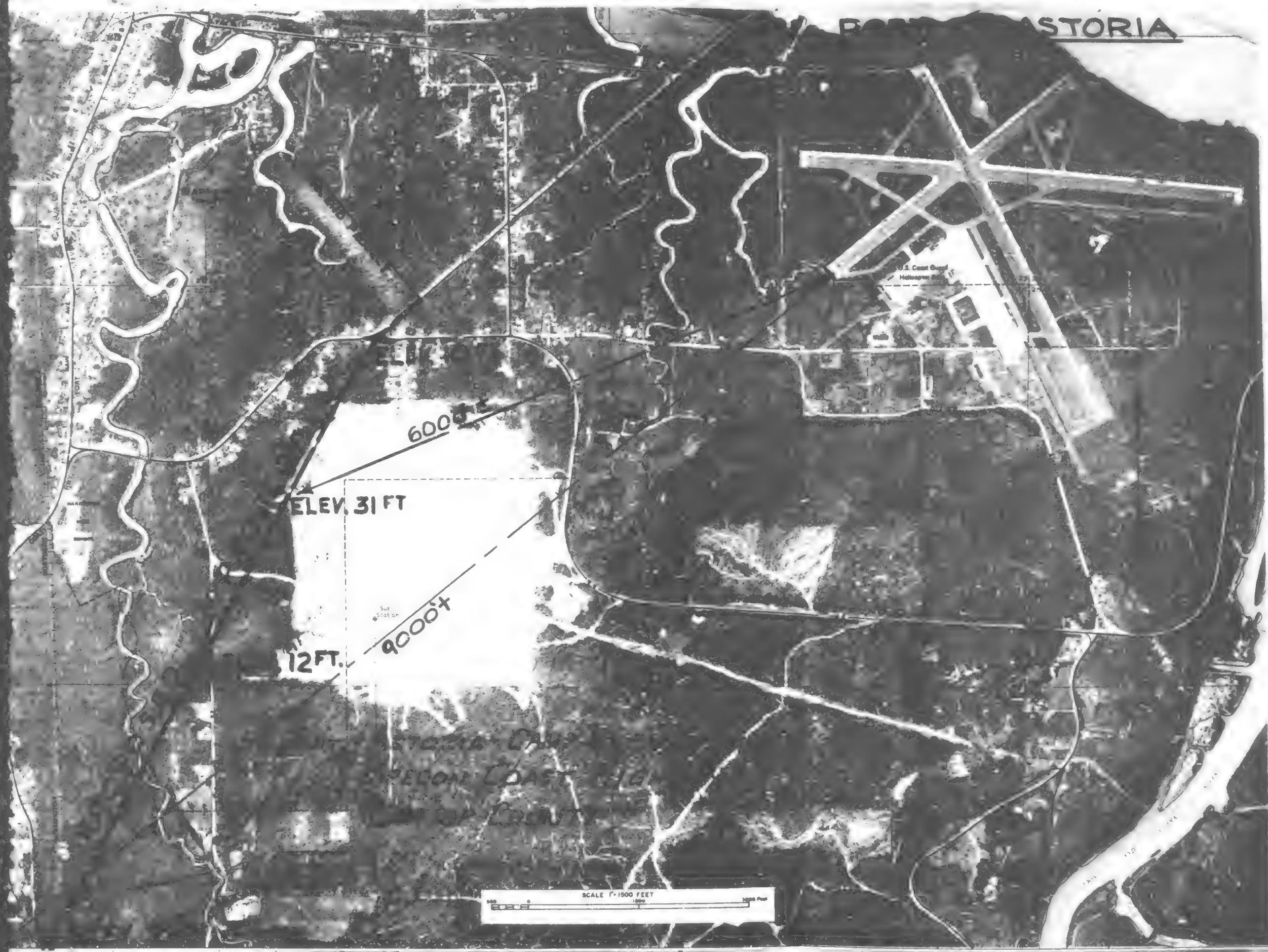
MK:az
cc: Don Keyes, Location
Roy Rassina, Aeronautics Division
Neal Burghardt, FHWA

RECEIVED
JUL 28 1976
ROAD DESIGN SECTION

Vorstog
Olson
Overstreet
Scott
Swenson
Savage
Trout

Requires Reply
Requires Approval
Receive Keep
Do not File
Return To
Bring Up
Other


600
ELEV. 31 FT
Sub Station
9000+
12FT.
SCALE 1"=1500 FEET


ASTORIA
600'
ELEV. 31 FT
9000'
12FT.
SCALE 1"=1500 FEET

8949

OREGON STATE HIGHWAY DIVISION

PRO-6-2

HIGHWAY BUILDING • SALEM, OREGON • 97310

June 29, 1976

ROBERT W. STRAUB
GOVERNOR

TO Executive Department
Federal Aid Coordination Unit

Clatsop-Tillamook Intergovernmental Council
P.O. Box 488
Cannon Beach, Oregon 97110

FROM George W. Hopkins
Project Development Engineer

SUBJECT Draft Environmental Statement
District No. 1
Federal Aid Funds
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway (U.S. 101)
Clatsop County

In accordance with the National Environmental Act of 1969 (Public Law 91-190) attached are copies of the Draft Environmental Statement for your review and comment.

Your reply upon receipt of this Environmental Impact Statement will be anticipated within the 45-day period established by the Federal Council of Environmental Quality Deadlines. If no response is received within this period, it will be assumed that you have no comments.

If you need additional information on this project, please contact Project Management Section, State Highway Division, Salem, Oregon 97310. Phone 378-6563.

Attachments

BLG:re

cc: G. L. Green, FHWA
E. S. Hunter
R. L. Schroeder
J. H. Versteeg
Gary Potter
G. N. Hopkins, County-City
D. E. Swan
B. L. Gifford
C. O. Fredrickson
E. L. Everton

RECEIVED
JUN 29 1976
Office of
Assistant State Highway Engineer

NOTED
R. L. SCHROEDER

A DIVISION OF THE DEPARTMENT OF TRANSPORTATION

8949

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

March 8, 1976

Salem, OR 97310

FILE:

FROM: Gary A. Potter, Manager
Environmental Section

SUBJECT: South Unit, Astoria-Camp Rilea Sec.
Oregon Coast Highway (U.S. 101)
Clatsop County, Oregon

TO: R. L. Schroeder
Assistant State Highway Engineer

The subject draft environmental statement has been reviewed by the Environmental Study Committee.

The committee has appraised the natural and social impacts included and has found that the statement adequately covers these phases of the project. If you agree, please sign the draft title sheet and return to this office for processing through the Federal Highway Administration.

NOTED
E. S. HUNTER

GAP:ss

Attachments

cc: F. B. Klaboe w/attach/
E. S. Hunter
J. H. Versteeg
Frank Terpin
L. W. Rulien
C. O. Fredrickson

RECEIVED
STATE HWY ENGR
MAR 8 '76
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NOTED
MARC SIEMENS

ESH

8749

9

FORM E-30-X 12-67

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
February 26, 1976

Frank E. Terpin
Location Engineer

SUBJECT: Astoria-Camp Rilea, South Unit
Oregon Coast Highway
Clatsop County

To: C.O. Fredrickson
Region 2 Engineer

For your information, the Soils and Geology Unit has reevaluated the foundation stabilization treatment for the area between Stations 181+00 and 187+50.

Mr. Yarbrough recommends the addition of a counterbalance along with the originally proposed surcharge. The addition of the counterbalance will create some problems with the culvert installation at State 184+75. Two alternate designs for the culvert installation are possible. 1) Move the culvert position to stable ground and construct inlet and outlet ditchs. 2) Subexcavate about 15 feet of unstable material and backfill with sand to provide a stable foundation for the culvert bed.

Option number 1 would probably require additional right of way while option number 2 could be constructed within the right of way shown on the detail map. The details of the culvert installation will be studied further when the project reaches the final design stage.

Attached are a sketch map noting the counterbalance toes and culvert placement along with a typical section for the counterbalance proposal.

Bud Mann
Road Design

DB:jp
Attach
cc: Fred Yarbrough w/attach
W.N. Hackleman

REFERRED TO
Beard, Reed, Cole, Sample, Eriksen, Watson, Hager, Wolfe
Return, Discuss, Do, File Copy, Due
BY FINAL DESIGN ENGINEER

Versteeg, Olson, Scott, Swenson, Savage, Trout

RECEIVED
SEP 08 1976
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☑
Return To
Bring Up
Other

Astoria - Camp Rilea South Unit

Counterbalanced Slopes

(20th ST)

(21st ST.)

3° C.L.

S.E. 13th PLACE

S.E. 14th ST.

600 Sp.
S=9.00
a=0.5

Clatsop Co.
151-609

132-92

Toe of Counterbalance

Top of Ch Ch Cut

Toe of Counterbalance

Dead RR

Ins
Ins

Camp Riley

Unit

Sta. 184+00 to Sta.
Const. Guard Rail-
Const. Anchor-1 (T)
Const. Anchor-1 (T
Inst. End Piece-1 (
Inst. End Piece-1 (

balance Slopes

(20th ST)

(21st ST.)

S.E. 13th PLACE

S.E. 14th ST.

600' Sp.
S=9.00
a=0.5

Tae of Counterbalance

Top of Ch Ch. Cut

Tae of Counterbalance

Clatsop Co.
151-609

132-92

210-159

200-481

39284

137-497

121-113

Bell Tr.
Cond

OREGON STATE

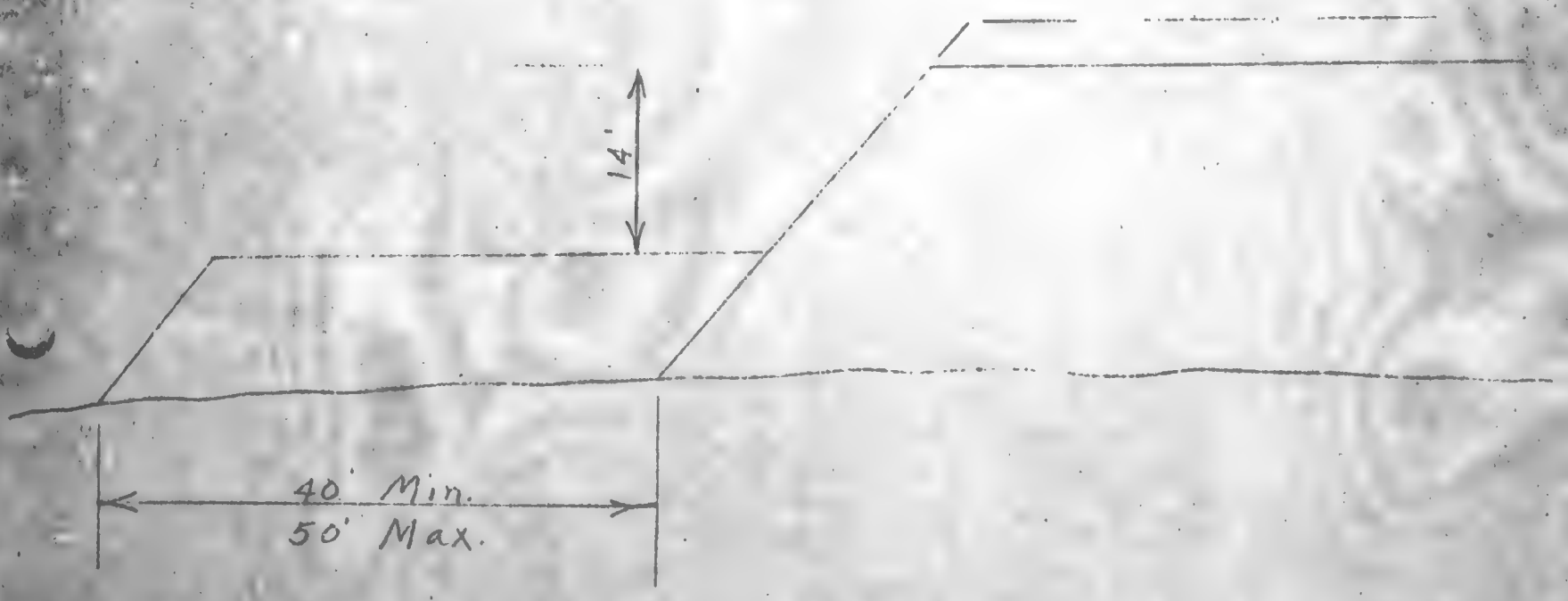
Calculations for

Made by [illegible] 19 Checked by

Astoria - Camp Rilea, S. Unit Feb 76

Counterbalance Section

Sta 160+50 to 181+50



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1 1 1976
ROAD DESIGN SECTION

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Receiver Keep
Do not File
Return To
Bring Up
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NOTED
E. S. HUNTER

Astoria - Camp Rilea Section

Status Report as of Feb. 9, 1976

The project was returned to the Location Section on April 23, 1975. Location has completed plans for a two-lane roadway with channelizations. The earthwork has been reworked from subexcavation and sand backfill to surcharge loading of embankments.

Location has completed work on the project and is holding the data.

The design-corridor hearing scheduled for Dec. 11, 1975 was postponed to Mar. 24, 1976.

Environmental statement status as follows:

July 11, 1974 Project assessment circulated

June 19, 1975 study committee began work on EIS

Jan. 23, 1976 study committee review

Feb. 23, 1976 Draft EIS anticipated by this date

(12 mo. to acquire R/W after receiving go ahead)

Fred Eriksen

RECEIVED
STATE HWY ENGR
FEB 13 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

NOTED
F. E. [illegible]

3719

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

December 23, 1975

FILE: 4-1920

FROM: C. O. Fredrickson
REGION 2 ENGINEER

TO: Frank E. Terpin
FINAL DESIGN ENGINEER

SUBJECT: Astoria-Camp Rilea Section
South Unit
Oregon Coast Highway
Clatsop County
Value Engineering Seminar
Report

The Region Office, including the Region Geologist, has reviewed the report which delt with the substitution of native sand for the crushed aggregate material in the shoulders of the subject section. We were in agreement that this would affect an initial substantial cost saving. We are, however, somewhat concerned over the long term costs of proceeding with this alternative.

Our experience with native sand on the coast is that the material is highly erodible, since it appears to be made up of particles which are substantially the same size, and the material, because of its fineness and grain structure, is highly subject to both wind and water erosive action. We agree that planting of these shoulder areas would have a tendency to cut-down on erosion, but we are also concerned with the amount of maintenance that planted shoulders would add to our overall operation. It would appear that some sort of spraying, mowing or other maintenance activity would be required, if we were to keep these shoulder areas in acceptable condition. It would also appear that maintenance of the shoulder material due to vehicles leaving the paved portion of the roadway, would be considerably increased.

Please consider these comments in your consideration of this change in the project plans and specifications.

REFERRED TO

Beard — Reed
Cole — Semple
Eriksen — Watson
Hager — Wolfe
Return — Discuss — Do — File Copy — Due
BY FINAL DESIGN ENGINEER

Verstoeg
A. Olson
Terpin
Scott
Swenson
R. Olson
Trout

RECEIVED
DEC 24 1975
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep
Do not File ☐
Return To
Bring Up
Other

COF/elf

8949

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Lehmann, Coordinator Ph: 378-3732

STATE A-95 REVIEW CONCLUSIONS

APPLICANT: State Highway Division

PROJECT TITLE: Astoria-Camp Rilea, S. Unit CLATSOP

DATE: December 23, 1975

The state has reviewed your project and reached the following conclusions:

12-29-75
cc: G. L. Green, FHWA
F. B. Klaboe
V. D. Wolfe
J. B. Boyd
R. E. Royer
J. H. Versteeg
Gary Potter
G. H. Hopkins, Co.-City
B. L. Giffo d
D. E. Swan
C. O. Fredrickson
E. L. Everton
W. J. Hart
Aeronautics Div.

☒ No significant conflict with the plans, policies or programs of state government have been identified ~~and your proposal is endorsed as presented.~~

☒ Relevant comments of state agencies are attached and should be considered in the final design of your proposal.

☐ Potential conflicts with the plans and programs of the state agency(s) have been satisfactorily resolved. No significant issues remain.

☐ Significant conflicts with the plans, policies or programs of state government have been identified and remain unresolved. The final proposal has been reviewed and the final comments and recommendations of the state are attached.

RECEIVED
STATE HWY ENGR
DEC 30 '75
REFER TO
FOR
Info | Invest | P&D | D/R | [illegible] | Act | F

NOTICE TO FEDERAL AGENCY

The following is the officially assigned State Identifier Number:

7511 2 750

This number should be used on all correspondence and particularly on SF 240 as required by OMB A-98.

A copy of this notification and attachments, if any, must accompany your application to the federal agency as required by OMB A-95. Comments of the appropriate local reviewing agencies must also be included.

SENT
BEN GIFFORD
11-24-75

NOTED
MARIE STEPHENS

PNRS #2

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

RECEIVED
NOV 28 1975
DIVISION OF STATE LANDS

LOCAL GOVERNMENT RELATIONS DIV.
DEC 19 1975

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Lehmann, Coordinator Phone: 378-3732

PNRS STATE REVIEW

Project #: 7511 2 750 Due Date: DEC 19 1975

To Agency Addressed: If you intend to comment but cannot respond by the return date, please notify us immediately. If no response is received by the due date, it will be assumed that you have no comment and the file will be closed.

PROGRAM REVIEW AND COMMENT

To State Clearinghouse: We have reviewed the subject Notice and have reached the following conclusions on its relationship to our plans and programs:

( ) It has no adverse effect.

(xx) We have no comment.

( ) Effects, although measurable, would be acceptable.

( ) It has adverse effects.

( ) We are interested but require more information to evaluate the proposal.

( ) Please coordinate the implementation of the proposal with us.

( ) Additional comments for project improvement. (Attach if necessary)

RECEIVED STATE HWY ENGR
DEC 30 75
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Inves
R/D
C/R
Sign
Act

- - - - - - - - - -

REMARKS (Please type or print legibly)

The Highway Division routinely applies for permits needed from the Division of State Lands.

K

Agency Lands By Jan Haley

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

LOCAL GOVERNMENT RELATIONS DIV.
DEC 19 1975

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Lehmann, Coordinator Phone: 378-3732

PNRS STATE REVIEW

Project #: 7511 2 750 Due Date: DEC 19 1975

To Agency Addressed: If you intend to comment but cannot respond by the return date, please notify us immediately. If no response is received by the due date, it will be assumed that you have no comment and the file will be closed.

PROGRAM REVIEW AND COMMENT

To State Clearinghouse: We have reviewed the subject Notice and have reached the following conclusions on its relationship to our plans and programs:

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( ) Please coordinate the implementation of the proposal with us.

(X) Additional comments for project improvement. (Attach if necessary)

RECEIVED STATE HWY ENGR
DEC 30 '75
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REMARKS (Please type or print legibly)

The following areas of concern need to be made a part of the project.

1. Streams crossed by highway construction should have adequate culverts of near zero grade to allow for fish passage.

2. In channel work, if necessary, to take place between June 1 and October 1.

Agency Fish & Wildlife By William E. Pitney
ENVIRONMENTAL MANAGEMENT SECTION 12/17/75

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Lehmann, Coordinator Phone: 378-3732

Dept. of Environmental Quality
RECEIVED
NOV 25

PNRS STATE REVIEW

Project #: 7511 2 750 Due Date: DEC 19 1975

To Agency Addressed: If you intend to comment but cannot respond by the return date, please notify us immediately. If no response is received by the due date, it will be assumed that you have no comment and the file will be closed.

PROGRAM REVIEW AND COMMENT

To State Clearinghouse: We have reviewed the subject Notice and have reached the following conclusions on its relationship to our plans and programs:

STATE HWY ENGR
DEC 30 75
REFER TO
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R/D
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Sign

( ) It has no adverse effect.

( ) We have no comment.

( ) Effects, although measurable, would be acceptable.

( ) It has adverse effects.

(✓) We are interested but require more information to evaluate the proposal.

( ) Please coordinate the implementation of the proposal with us.

( ) Additional comments for project improvement. (Attach if necessary)

- - - - - - - - - - -

REMARKS (Please type or print legibly)

Waiting on DEIS

K

Agency DEQ By L Willis

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

DEPARTMENT OF LAND CONSERVATION AND DEVELOPMENT

STATE CLEARINGHOUSE

Oregon State Health Division Administrator

RECEIVED
NOV 28 1975

DEC 2 1975
SALEM

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Bernmann, Coordinator Phone: 378-3732 DNF___TEMP___PERM

PNRS STATE REVIEW

Project #: 7511 2 750 Due Date: DEC 19 1975

To Agency Addressed: If you intend to comment but cannot respond by the return date, please notify us immediately. If no response is received by the due date, it will be assumed that you have no comment and the file will be closed.

PROGRAM REVIEW AND COMMENT

To State Clearinghouse: We have reviewed the subject Notice and have reached the following conclusions on its relationship to our plans and programs:

RECEIVED STATE HWY ENGR
DEC 30 75
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( ) It has adverse effects.

( ) We are interested but require more information to evaluate the proposal.

( ) Please coordinate the implementation of the proposal with us.

(✓) Additional comments for project improvement. (Attach if necessary)

- - - - - - - - - - -

REMARKS (Please type or print legibly)

The applicant should make every effort to insure that this project makes use of the recognized citizen and agency involvement programs established by state land use goals #1 - Citizen Involvement and #2 - Land Use Planning.

Agency LCDC By Donna Hopp for John Gustafson

8949

9

Salem, Oregon
December 11, 1975

Frank E. Terpin
Final Design Engineer ORIGINAL SIGNED BY FRANK E. TERPIN FINAL DESIGN ENGINEER

C. D. Fredrickson
Region 2 Engineer

Astoria-Camp Rilea Section
South Unit
Oregon Coast Highway
Clatsop County

The subject project was one which was studied by a team at the Value Engineering Seminar conducted last September. The team recommended that sand be used as a substitute for the crushed aggregate in the aggregate shoulder material. The study indicated a savings of approximately $40,000 would result.

Will you please review findings of that study with the soils and geology people to determine if the substitution would be successful.

FET:jh
cc: Fred Yarbrough
Clarence Gregg
Larry Jacobsen
W. N. Hankleman
C. G. Swenson
Fred Eriksen

Vorstoog ✓
A. Olson
Terpin
Scott
Swenson
R. Olson
Trent

RECEIVED
DEC 11 1975
ROAD DESIGN SECTION

Remarks Ready
Necessary Approval
Reference Keep
Do not File
Return To
Routing
Other

8.4.7

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

November 24, 1975

ROBERT W. STRAUB
GOVERNOR

F. B. KLABOE
Administrator of Highways

TO: Executive Department
Federal Aid Coordination Unit

Clatsop-Tillamook Intergovernmental Council
P. O. Box 488
Cannon Beach, OR 97110

FROM: George N. Hopkins
Project Development Engineer

SUBJECT: Notice of Intent for Federal-Aid Funds
State Admin. Dist. No. 1
Astoria-Camp Rilea, S. Unit Section
Oregon Coast Highway (US 101)
Clatsop County

In accordance with Executive Memorandum 02-270-20, attached are copies of the Notices of Intent for the subject project.

Early programing of this project for advance planning in anticipation of future construction is necessary; therefore, your prompt attention to this proposal will be appreciated.

Allowing time for your review, we estimate the date of filing for federal-aid funds on this project to be December 29, 1975.

Attachment

BLG:ek

cc: G. L. Green, FHWA
F. B. Klaboe
V. D. Wolfe
J. B. Boyd
R. E. Royer
J. H. Versteeg
Gary Potter
G. N. Hopkins, County-City
B. L. Gifford
D. E. Swan
C. O. Fredrickson
E. L. Everton
Aeronautics Div.
W. J. Hart

RECEIVED
STATE HWY ENGR
NOV 25 '75
REFER TO
FOR
Info | Issues | R/D | D/R | Sign | Act | File

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

NOTIFICATION OF INTENT TO APPLY FOR FEDERAL AID

Page One

For Internal Use Only | 1-8] PNRS #

02 | 12] APPLICANT: State Highway Division [45] | 46] DIVISION: Dept. of Transportation [79]

03 | 12] APPLICANT ADDRESS STREET: State Highway Building [45] | 46] CITY: Salem [60] | 76] ZIP: 97310 [80]

04 | 12] CONTACT PERSON: L. W. Kulien [45] | 46] AREA CODE: 503 [48] | 49] PHONE: 378 [55] | 56] EXTENSION: 6563 [59]

01 | 12] PROJECT TITLE: Astoria-Camp Rilea, S. Unit Dist. 1 [71]

11 | 12] PROJECT LOCATION—CITY: Oregon Coast Highway US Route 101 | PROJECT LOCATION—COUNTY: Clatsop | PROJECT LOCATION SEC: - T: 7-8 N R: 10 W [79]

05 | SUMMARY PROJECT DESCRIPTION (ATTACH SUPPORTING DOCUMENTS AS NECESSARY—SEE INSTRUCTIONS ON BACK)
12] This proposal involves preliminary engineering, acquisition of right-of-way, [71]

06 | 12] grading, paving, structire, and incidental work to improve the existing facility. [71]

07 | 12] Overall length is approximately 2.8 miles. [71]

08 | 12] (See attachment) [71]

09 | 12] [71]

10 | 12]

12 | AMOUNT REQUESTED—FEDERAL FUNDS: (A) Grant [19]: 2,418,000 | (B) Other [27]: - | NON-FEDERAL MATCHING FUNDS: (C) State [35]: 682,000 | (D) Local [43]: - | OTHER 44] (E) FUNDS [51]: - | TOTAL 52] (F) FUNDS [60]: 3,100,000

13 | 12] TYPE OF OTHER FEDERAL FUNDS (See 12D) [45] | 46] TYPE OF OTHER NON-FEDERAL FUNDS (See 12E) [79] [71]

14 | 12] FEDERAL PROGRAM TITLE: Title 23 USC Highways

15 | 12] FEDERAL AGENCY NAME: U.S Dept. of Transportation [45] | 46] FEDERAL SUB-AGENCY NAME: FHWA [79]

17 | (A) TYPE OF APPLICANT: (Check (X) the single most applicable box)

STATE	INTER-STATE	COUNTY	CITY	SCHOOL DISTRICT	SPECIAL DISTRICT	COMMUNITY ACTION	SPONSORED ORGANIZATION	OTHER
[X] 12	☐ 13	☐ 14	☐ 15	☐ 16	☐ 17	☐ 18	☐ 19	☐ 20

(B) TYPE OF ACTION: (Check (X) as many boxes as apply to this action)

NEW GRANT	CONT. GRANT	SUPPL'T GRANT	INCREASE DURATION	DECREASE DURATION	CANCELLATION	INCREASE DOLLARS	DECREASE DOLLARS
[X] 21	☐ 22	☐ 23	☐ 24	☐ 25	☐ 26	☐ 27	☐ 28

(C) HAS DISTRICT CLEARINGHOUSE BEEN NOTIFIED? Yes [X] 29 No ☐ 30 Date: November 24, 1975

(D) REVIEW REQUIRED by A-95: Yes [X] 31 No ☐ 32

(E) ENVIRONMENTAL IMPACT: Yes [X] 33 No ☐ 34

(F) HOUSING RELOCATION REQUIRED: Yes [X] 35 No ☐ 36

(G) ESTIMATED APPLICATION FILING DATE: 41] MONTH [42]: December | 43] DAY [44]: 29 | 45] YEAR [46]: 1975

ADDITIONAL INFORMATION—ALL APPLICANTS

I. A. Is the project consistent with the city or county comprehensive plan, zoning and subdivision ordinance? No ☐ Yes ☒

I. B. Is the proposal consistent with statewide land use goals? No ☐ Yes ☒

I. C. Is the proposal consistent with state and regional plans? No ☐ Yes ☒

II. Will the project have an impact on a neighboring jurisdiction? No ☒ Yes ☐

If so, is the project consistent with the comprehensive plan for that jurisdiction? No ☐ Yes ☐

III. Explain deviations if any, from pertinent plans.

IV. Federal Catalog number (or Public Law no. and title) 20.205 Highway Planning & Construction

V. Has funding agency been notified? No ☐ Yes ☒ Date: 11-24-75

VI. If project includes state funds (12C), identify agency State Highway Division

STATE AGENCIES ONLY

VIII. (a) IS PROGRAM BUDGETED ☐ NON-BUDGETED ☐

(b) STATE SHARE

GENERAL FUND CASH	OTHER FUND CASH	IN KIND
$_____	$_____	$_____

(c) FUNDING METHOD

	FEDERAL SHARE		STATE SHARE		TOTAL	
First Year	%____	$_____	%____	$_____	%____	$_____
Second Year	%____	$_____	%____	$_____	%____	$_____
Third Year	%____	$_____	%____	$_____	%____	$_____

(d) WILL PROGRAM REQUIRE HIRING OF NEW STATE EMPLOYEES? No ☐ Yes ☐ Number _____

(e) Will accounting for this grant be administered by the Executive Dept. Accounting Division? Yes ☐ No ☐

PLEASE ATTACH ANY ADDITIONAL NARRATIVE OR REMARKS

17 (E) This is a Category I project of Major-Significan environmental impact under Oregon's Action Plan.

This project is proposed by the State Highway Division and appears in the Six-Year Construction Program as a Fiscal Year 1976 project.

A hearing is scheduled for early spring of 1976.

(See attachment)

PROJECT DESCRIPTION

Astoria-Camp Rilea,
South Unit, Section
Oregon Coast Highway
Clatsop County

1. Location:	Clatsop County (Part of the highway improvement is within city limits of Warrenton.)
2. Program:	Federal Aid Rural Primary; estimated construction cost - $3,100,000. Subject section appears in the Six-Year Construction Program as a fiscal year 1976 project.
3. Length:	Approximately 2.8 miles (Grading, Paving, Structure)
4. Termini:	Northerly project beginning is Station 168+00 just north of the intersection of US 101 with Alternative 101, about 2.5 miles southwest of Astoria. Southerly end of project is immediately south of Camp Rilea Road at Station 317+00.
5. Alignment:	Proposed new easterly alignment across undeveloped land.
6. Right-of-Way:	Majority of right-of-way for a four-laned facility has been acquired. However, some right-of-way at north end and much at south end has not be acquired. Additional right-of-way required is approximately 71 acres. One commercial site and eighteen single-family residences would be affected.
7. Typical Section:	(Existing facility has two 12-foot travel lanes with 3-foot shoulders.) New facility would mainly provide two 12-foot travel lanes, 8-foot shoulders and 6:1 shoulder slopes. At channelized intersections, the section would be 6-foot shoulders, 16-foot travel lanes and 16-foot median (with 12-foot median left turn lane). At southerly end of project, 8-foot shoulders, four 12-foot travel lanes and 16' median.
8. Bikeway:	Class III Bike Lanes. Shoulders will be stripped and designated for bicycle usage.
9. Structure:	Bridge over Skipanon River. Skipanon River will be channelized under bridge (25' channel with 2:1 side slopes). Length of channel change is approximately 300 feet.

10. Roadway Connections:

North to South--

1. Existing 101 and Alt. 101 with new facility.
2. Dolphin Avenue
3. Ridge Road and Perkins Road
4. Camp Rilea Road

At the southern end, many private driveways will connect to the facility.

11. Railroad:

At-grade crossing of Burlington-Northern railroad tracks.

12. Special Construction:

A. Surcharged embankments 3½ feet average

Sta. 180+00 to 188+00
Sta. 218+25 to 227+75
Sta. 229+75 to 233+25
Sta. 235+50 to 249+00

B. Embankment foundation excavation section Station 248+50 to 269+50 (2,100 feet). This is a wet, boggy area heavily vegetated with trees and understory plants. This area will be backfilled with cement treated sand.

13. Quantity Summary:

A. Gross Sand Borrow - 125,000 cu. yds.
B. Aggregate required for surfacing - 38,000 tons.
C. General excavation - 206,740 cu. yds.
D. Embankment foundation excavation - 26,560 cu. yds.

14. Rock and Sand Sources:

To be determined

15. Waste & waste site:

24,000 cu. yds. from excavation; site to be determined.

16. Detour:

Not required.

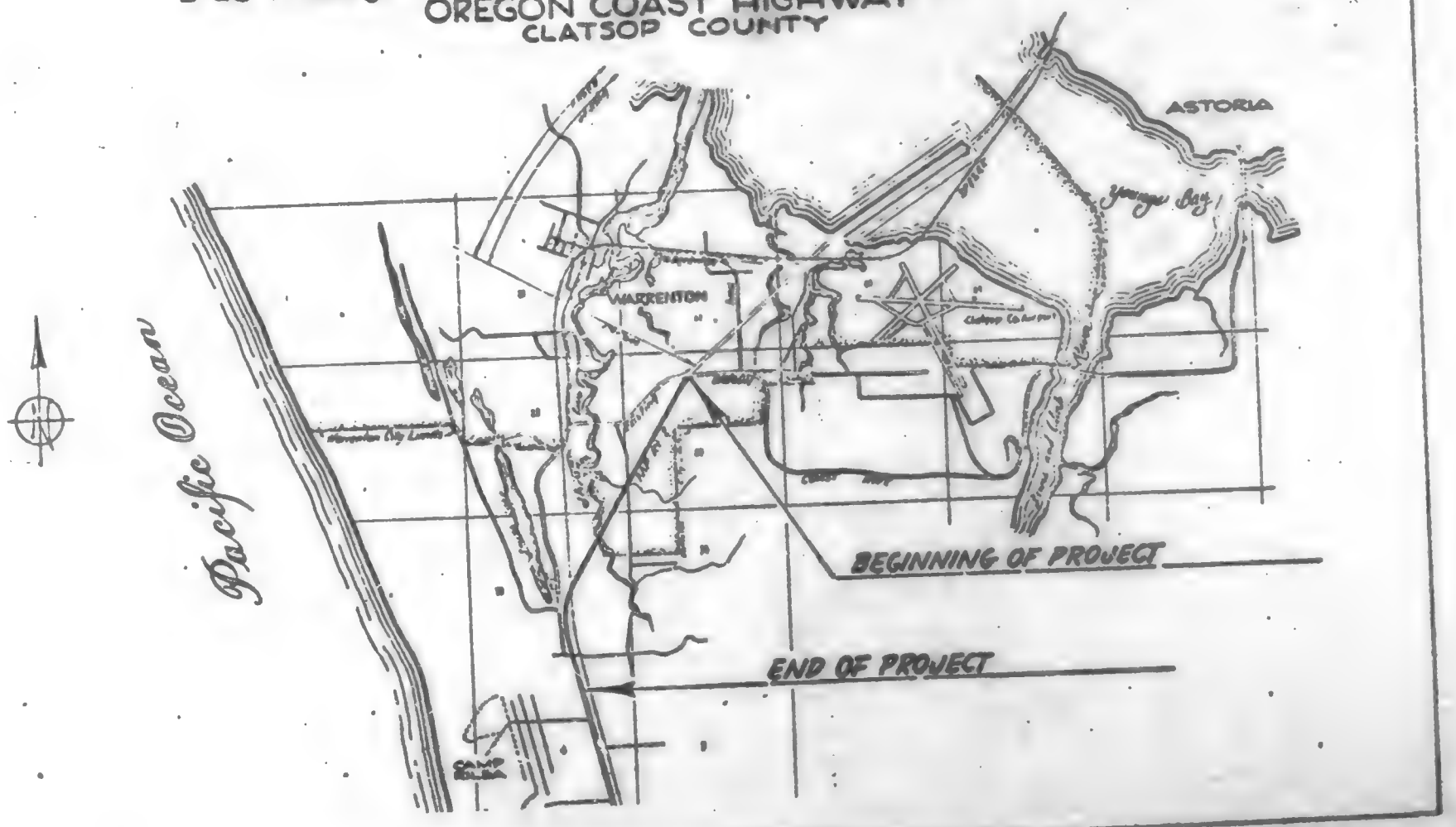
17. Average Daily Traffic:

1974 - 6,100 vehicles
- 10% truck traffic
1994 - 9,500

18. Brief History:

A. The existing section of US 101 was constructed in the mid-1920's.
B. Public hearing was held on October 29, 1959, covering the Smith Point (Astoria)-Camp Rilea Section.
C. Oregon Transportation Commission approved on December 16, 1959, a survey for acquisition of right-of-way.
D. Corridor Approval June 17, 1969.
E. Design Approval December 12, 1969.

SOUTH UNIT
ASTORIA-CAMP RILEA SECTION
OREGON COAST HIGHWAY
CLATSOP COUNTY



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ROW 18-2

9

OREGON STATE HIGHWAY DIVISION

ROBERT W. STRAUB
GOVERNOR

P. B. KLASOE
Administrator and
State Highway Engineer

November 4, 1975

Burlington Northern Inc.
1101 N.W. Hoyt St.
Portland, OR 97209

Attn: L. B. Kroft

Descriptions
S. Unit Astoria-Camp Rilea Sec.
Oregon Coast Highway
Clatsop County
R/W File: 35432

Dear Sir:

As I promised in my letter to you of October 24, 1975, enclosed are four copies of the descriptions of the necessary easements on the S. Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County. These descriptions accompany the encroachment maps which I furnished to you with this letter. Please utilize these descriptions in preparation of the easement document.

Versteeg
A. Olson
1 Terpin 1
2 Scott 2
Swenson
R. Olson
Trout

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NOV 5 1975
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
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Bring Up ___/___/___
Other

Yours truly,

J. E. Chidsey, P. E.
Railroad & Utility Engineer

JEC:jk
Enc.

cc: BN - Seattle
BN - St. Paul

bc: J. H. Versteeg
J. L. Sollis
J. S. Boyd
C. O. Fredrickson
Rod Henry w/copy description
Adele Egan

REFERRED TO

Board Bard
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BY FINAL DESIGN ENGIN...

Form 81-734-9122

8941

ROW 18-2

1 Versteeg
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2 Terpin
3 Scott
E. Hanson
B. Olson
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OCT 27 1975
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Bridge
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OREGON STATE HIGHWAY DIVISION

ROBERT W. STRAUB
GOVERNOR

P. B. KLABOE
Administrator and
State Highway Engineer

October 24, 1975

Burlington Northern Inc.
1101 N.W. Hoyt St.
Portland, OR 97209

Attn: Hal Hoy

Encroachment Map
S. Unit
Astoria-Camp Rilea Sec.
Oregon Coast Highway
Clatsop County

Dear Sir:

Enclosed for your information, review and use are four copies of the Encroachment Map on the Astoria-Camp Rilea, South Unit, Section, of the Oregon Coast Highway in Clatsop County. This map indicates two permanent easements which will be necessary for the Oregon Department of Transportation, Highway Division, to acquire from Burlington Northern for the construction of the relocated highway facility.

As soon as the descriptions for these two parcels are written, they will forwarded to you for your information and use. The present schedule of contract lettings shows the bids to be received for this project by the Oregon Transportation Commission on June 24, 1976. As further information is developed on this project it will be forwarded to you for your review and use.

Yours truly,

J. E. Chidsey, P. E.
Railroad & Utility Engineer

10-27-75
Descriptions to R/W in 2 days.
T
Desc.'s submitted to RW 10-28-75
R. Rounds

JEC:jk
Enc.

cc: BN - Seattle, C. F. Intlekofer
BN - St. Paul, Don Thomas

bc: J. H. Versteeg
J. L. Sollis
J. B. Boyd
C. O. Fredrickson
Rod Henry - w/copy encroachment map. Please obtain appraisal of these two parcels.

Form 01-734-5123

8947

9

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: PLA 9

July 18, 1975
Salem, Oregon

FROM: ORIGINAL SIGNED BY L. W. RULIEN
L. W. Rulien
Project Management Engineer

TO:
Gary Potter
Environmental Director

SUBJECT: Road User Economic Analysis
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

ATTENTION: Mike Murphy

E. S. HUNTER

A road user economic analysis was made for the subject section. The results are shown on the attached computer print-out. Two alternates were considered.

Alternate No. 1 is primarily over new alignment which has the effect of by-passing the southerly "built-up" portion of Warrenton. The northerly 2.16 miles of this alternate would provide two lanes for through traffic and the southerly 0.66 miles would provide four lanes. This proposal would have an at-grade railroad crossing. The total estimated construction cost of Alternate No. 1, which is 2.82 miles long, is $3,100,000.

Alternate No. 2 is primarily widening the existing alignment to four lanes for through traffic with a median lane for left turns and this design covers the entire length of the project. There is an at-grade railroad crosssing. The total estimated construction cost of Alternate No. 2, which is 3.3 miles long, is $5,470,000.

REFERRED TO
Board Road
Coin Sample
1 Brown F.E. Watson
Heger Ingle
Return Discuss Be File Copy Du...
BY FINAL DESIGN ENGINEER

The running speed for each alternate was determined from the Highway Capacity Manual-1965.

Unit cost values used in this analysis were:

Vehicle Type	Time Cost $/Hr.	Mileage Cost $/Mile
Passenger & Other		
Light Vehicles	$3	$0.085
Light Trucks	5	0.15
Heavy Trucks	6	0.20

The above values are justified in Use of the Rate of Return for Evaluating Highway Projects by Oregon State Highway Division and Office of the Director Oregon Department of Transportation.

RECEIVED STATE HWY ENGR
JUL 21 '75
REFER TO
FOR
Insp. | Inv. | R/D | D.F. | Supt. | Asst. | File

1 Versteeg
2 A. Olson
3 Terpin
Scott
Swenson
R. Olson
Trout

RECEIVED
JUL 24 1975
ROAD DESIGN SECTION

Requires Reply
Requires Approval
Receiver Keep
Do not File
Return To
Bring Up
Other

E. S. HUNTER

cc Wolfe
Versteeg

Basic assumptions were:

1) Economic life of each alternate is 30 years.
2) All costs are based on current values and they all will change at the same rate.
3) ADT, average running speeds and maintence costs vary uniformly between the first and thirtieth year.
4) The composition, as to type of vehicle, of the present ADT will remain constant and change of the ADT will be linear for the thirty years.

The interest rate shown near the top of the attached computer print-out sheet is the interest rate used in the calculations of the Benefit-Cost ratio.

Although a decision has not been made concerning the replacement of the bridge over Skipanon River of the Astoria-Warrenton Highway, for purposes of this analysis it was assumed the bridge would be replaced. This bridge replacement is mentioned here since the conclusions of this analysis would be different if the bridge indicated above was abandoned. Additional monies would have to be spent on the existing Oregon Coast Highway from its junction with the Fort Stevens Hwy. (No. 104) toward Astoria, to provide a tolerable capacity, if the indicated bridge was abandoned and Alternate No. 1 was constructed. The capacity, during the economic life of the segment from the junction of the Fort Stevens Highway to the northerly end of this analysis, should be adequate if the indicated bridge was abandoned and Alternate No. 2 was constructed.

Based on these assumption Alternate No. 1 (Network No. 2), the new alignment proposal, would provide the better rate-of-return which has a value of 12.21%.

Attachments

DG:dc

cc: ~~R. W. Bothmer~~ E. S. Hunter

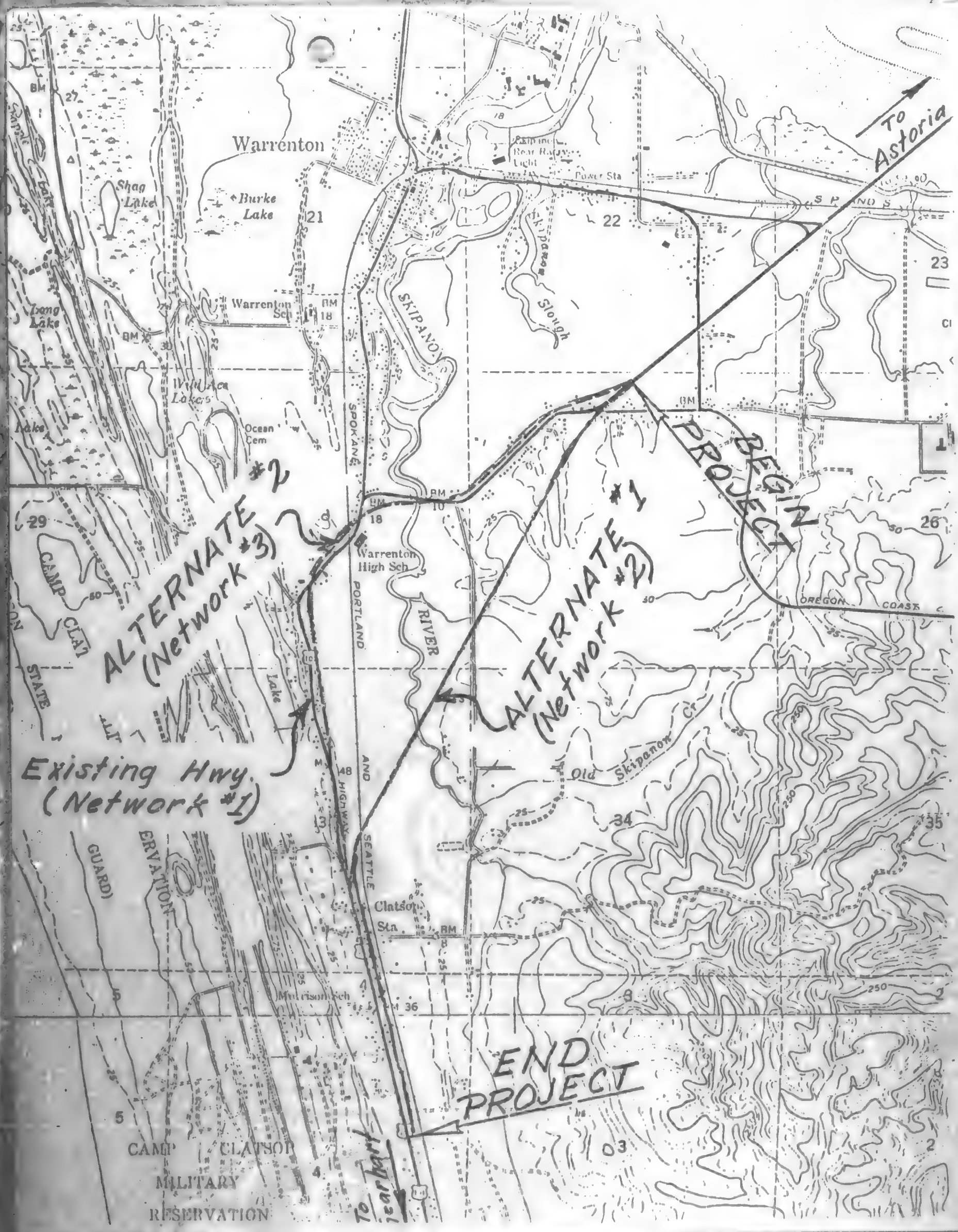
OREGON STATE HIGHWAY DIVISION
RATE OF RETURN

ASTORIA - CAMP RILEA, S. UNIT.

PROJECT IDENTIFICATION 00
HIGHWAY NUMBER 009
BEGINNING M.P. 007.32

PROJECT INTEREST RATE 6.00

	EXISTING ALIGN. NETWORK 1 BASE	ALTERNATE NO. 1 NETWORK 2	ALTERNATE NO. 2 NETWORK 3
LENGTHS BY IMPROVEMENTS			
EXISTING	3.72	2.85	0.48
IMPROVED EXISTING	0.00	0.87	3.24
NEW ALIGNMENT	0.00	1.95	0.00
TOTAL LENGTH	3.72	5.67	3.72
PROJECT COSTS			
TIME COSTS	13,007,322.38	8,625,681.16	7,142,705.92
MILEAGE COSTS	12,397,302.55	11,028,339.11	12,290,654.04
MAINT + OPERATING COSTS	227,722.11	342,819.50	334,417.59
ACCIDENT COSTS	0.00	0.00	0.00
CONSTRUCTION COSTS	0.00	3,100,000.00	5,470,000.00
TOTAL COSTS	25,632,347.04	23,096,839.77	25,237,787.55
BENEFIT COST QUOTIENT		1.81	1.07
RATE OF RETURN		12.21	6.59


Warrenton
Shag Lake
Burke Lake
Long Lake
Lake
Warrenton Sch
Warrenton High Sch
Ocean Cem
Wildwood Lakes
Camp Rilea
Power Sta
Tongue Point
Bear Rock Light
To Astoria
SKIPANON
Slough
SPOKANE
PORTLAND AND SEATTLE HIGHWAY
RIVER
OREGON COAST
Old Skipanon
Clatsop Sta.
Miller Sch
CAMP CLATSOP MILITARY RESERVATION
GUARD
ERVATION
STATE
ALTERNATE #3 (Network #3)
ALTERNATE #2 (Network #2)
Existing Hwy. (Network #1)
BEGIN PROJECT
END PROJECT
To Tongue Point
BM
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8949

July 8, 1975

Mr. Steven Phillips, President
Seaside Chamber of Commerce
Post Office Box 7
Seaside, Oregon 97138

Dear Mr. Phillips:

This is in reply to your letter of June 17 expressing concern about the Camp Rilea Section of Highway 101. I assume you are referring to the South Unit of the Astoria-Camp Rilea Section which appears in our current Six-Year Construction Program. The project is tentatively scheduled for construction to start during Fiscal Year 1976.

K

1013

The administrative steps remaining to bring the project to the construction phase include the preparation and processing both the draft and final environmental impact statements and holding of a public hearing followed by analysis and evaluation of public input. This will call for a relatively tight time frame as it is not expected to have these steps completed before March 1976. Provided there are no objections to the project we currently plan contracting during the last quarter of Fiscal Year 1976.

I can understand your anxiety about this section of highway and hope this will give you some assurance that the project is being actively pursued.

Very truly yours,

R. S. Hunter
Deputy State Highway Engineer

WHT:mc js

bc: F. B. Klaboe
V. D. Wolfe
C. O. Fredrickson

more to view/more to do/ Seaside Chamber of Commerce/Post Office Box 7/Seaside, Oregon 97138/(503) 738-6391

SEASIDE

June 17, 1975

State Highway Commission
Oregon State Highway Division
Salem, Oregon 97310

Dear Sirs:

On behalf of the Seaside Chamber of Commerce, I am writing in regard to the Camp Rilea section of Highway 101.

We are continually being reminded by visitors of the congestion and dangerous conditions along this stretch of Highway.

Many studies have been made; the basic proposal has been accepted; and funding made available but the project has not progressed.

The feeling of our membership is that this should be expedited as fast as possible.

Thank you for your consideration.

Sincerely,

Steven Phillips

Steven Phillips,
President

SP/tm

RECEIVED
STATE HWY ENGR
JUN 19 75
REFER TO
Hunter
FOR
Info | Inves | R/D | D/R ✓ | Spec | Act | File

RECEIVED
JUN 23 1975
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Wolfe
R1D

89-19

June 27, 1975

Mr. Glenn L. Jackson, Chairman
Oregon Transportation Commission
c/o Pacific Power and Light Company
920 S. W. Sixth
Portland, OR 97204

8.K
193

Dear Mr. Jackson:

You recently received a copy of a letter written by Kenneth Brown, President of the Astoria Golf and Country Club, and addressed to Mr. C. O. Fredrickson, Region II Engineer. Subsequently, you asked Mr. Klabee for a report on what we were doing to alleviate the situation.

For your information, I am enclosing a copy of the Astoria Golf and Country Club letter and a copy of Mr. Fredrickson's reply to that letter, which I believe adequately explains the status of the proposed Council of Governments construction project, and the improvements to sight distance at the intersection which Mr. Fredrickson has undertaken with local maintenance crews.

Very truly yours,

E. S. Hunter
Assistant State Highway Engineer

ESH:je

Enc.

bc F. B. Klabee
A. E. Johnson
R. L. Schroeder (enc.)
H. S. Coulter
C. O. Fredrickson

4-1920

OREGON STATE HIGHWAY DIVISION

REGION 2

2960 E. STATE STREET • SALEM, OREGON • 97310 • Phone 378-2626

June 24, 1975

TOM McCALL
GOVERNOR

F. B. KLABOE
Administrator of Highways

RECEIVED
JUN 24 1975
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Seaside Chamber of Commerce
P.O. Box 7
Seaside, Oregon 97138

ATTENTION: Steven Phillips
PRESIDENT

NOTED
E. S. HUNTER

Dear Mr. Phillips:

Thank you for your letter of June 17, 1975, inquiring about the South Unit-Astoria Camp Rilea Section of Highway 101. I can understand your concern and will try to explain the situation in which we find ourselves at the present time.

As you know, the original hearings on this section of highway were held some time ago. Since that time, th rules have changed, and we are involved in a considerably deeper analysis of the environmental situation regarding highway construction. At the present time, the time table on the South Unit-Astoria Camp Rilea Section looks something like this.

The Environmental Section of the Highway Division is currently working as fast as they can on a Draft Environmental Impact Statement. They expect to complete this document some time in the first quarter of 1976, and a hearing on the project will be held at that time. After the hearing they will prepare a Final Environmental Impact Statement on the project and they currently expect to have this work done about March of 1976. If all goes well, we should be able to let a contract on this project some time in the summer of 1976.

I seriously doubt that there will be any particular objection to the project as currently planned. We are, however, required to comply with the basic rules and regulations contained both in Federal Regulations and in

the Oregon Action Plan under which we have been working since November 1, 1974. The project is currently contained in the six-year program for fiscal year 1976, and we hope that this time table may be adhered to.

We appreciate your interest and hope that this will answer some of your questions. Thank you again for your interest.

Very truly yours,

ORIGINAL SIGNED BY
C. O. FREDRICKSON

C. O. Fredrickson
REGION 2 ENGINEER

COF/elk

bc: E. S. Hunter
R. L. Schroeder
Gary Potter
Victor Wolfe

4-05

REGION 2 ENGINEER
RECEIVED
JUN 1 9 1975
RE RCE RME RT ROE
ULE GEO RSO ROC RFE

Robert Straub
XXXXXXXXX

June 19, 1975

Mr. Kenneth Wrenn, President
Astoria Golf and Country Club
P.O. Box 148
Astoria, Oregon 97103

Dear Mr. Wrenn:

Subject: Sunset Beach Intersection
Oregon Coast Highway
MP 13.45

Thank you for your June 11, 1975, letter concerning the Sunset Beach Road intersection with the Oregon Coast Highway. Following your December 18, 1973, letter the intersection was investigated and the sight distance was improved to the north by cutting back the bank and removing some small trees.

The section of the Oregon Coast Highway that Sunset Beach Road intersects is the Glenwood Undercrossing-Cullaby Lake Road Section. That section was included in the District 1 COG's bond request. Unfortunately, it was not included in the first issue and funding has not been arranged for the balance of the bond projects. However, we are proceeding with the survey. It is under the supervision of Mr. Garold Inloes, P.O. Box 1104, Astoria, Oregon, 97103, phone 325-4732. He is not currently working on the project due to the press of construction work, but he will be next fall after the end of the construction season. Action Plan procedures of inviting public input and comment as well as public hearings will be necessary before right-of-way acquisitions can commence.

To make certain that there isn't something that we could and should be doing in the interim, I will once again ask our Region Traffic Engineer, Rick Kuehn, to investigate this intersection. You will hear from us again when his investigation has been completed. Again, thank you for your interest in this particular highway matter.

Yours very truly,

ORIGINAL SIGNED BY
C. O. FREDRICKSON

C. O. Fredrickson
REGION 2 ENGINEER

COF/GW/dea
cc: E. S. Hunter w/attach.
H. S. Coulter w/attach.
E. L. Everton w/attach.

Astoria Golf and Country Club · P. O. Box 148 · Astoria, Oregon 97103

CLUBHOUSE 861 2211
PRO SHOP 861-2545

June 11, 1975

Mr. C. O. Fredrickson
Region II Engineer
2960 E. State Street
Salem, OR 97310

Dear Mr. Fredrickson:

On December 18, 1973, we wrote a letter to Mr. Glenn Jackson, describing some of the problems existing on Highway 101 in the vicinty of the Astoria Golf and Country Club turn-off. Mr. Jackson acknowledged the letter and the problem, but stated that funds limitations precluded work on that stretch in the immediate future. That problem still exists and, once again, becomes more acute as the summer traffic builds.

In brief, Highway 101 curves a fairly short distance either side of the Country Club and Sunset Beach entrance road. This creates a blind curve situation that is always hazardous, but is particularly so during periods of heavy traffic and/or low visibility. While we can't act as spokesmen for the people living in adjacent Sunset Beach and the many people using this road as an access to the ocean beach itself, the problem applies to them as well as to our members. long delays in gaining access to Highway 101 from this road are common and impatient drivers are tempted to dart out into relatively small gaps when the traffic is heavy. During periods of relatively

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JUN 13 1975
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

light traffic, the visibility is frequently limited by rain, the roads are slippery and the blind curves make safe entry into the highway questionable. A driver waiting to enter Highway 101 is directly in the path of the southbound traffic on that highway, until the road makes its last curve less than 100 yards north of the access road. The driver of the waiting car is absolutely defenseless against the failure of a southbound car safely negotiating that curve. Remaining back a safe distance on the access road makes it impossible to be approaching northbound traffic. In short, this is a hazardous area and a matter of continuing concern to the Board of Directors and the members of this club.

The Governor has indicated that some additional highway funding might be made available to Clatsop County. I would like to urge you to consider this intersection in your planning so appropriate priority may be given to reducing the hazard that now exists.

Yours truly,

Kenneth Wrenn

Kenneth Wrenn
President
ASTORIA GOLF AND COUNTRY CLUB

njh
cc: Glenn Jackson
Elden Everton

8-1
193

March 27, 1974

Mr. Glenn L. Jackson, Chairman
Oregon Transportation Commission
c/o Pacific Power & Light Company
Public Service Building
Portland, OR 97204

Dear Mr. Jackson:

Reference is made to your correspondence with W. F. Monnes, President of the Astoria Golf and Country Club, concerning the Club turnoff on Highway 101.

Our Regional office made an investigation of this section of highway and has just completed the improvement of the sight distance for cars entering the highway (which has been the main difficulty at this location).

Clatsop County has indicated they will recommend improvement of a 1.4-mile section of the Coast Highway at this location, which would include the entrance to the Club, to be done on the bond program. However, Tillamook County has not offered their suggestions, and we do not have a complete presentation from that local COG.

The improvement of the section of the Coast Highway from Camp Rilea to Anderson Road is a $5 million project, and because of environmental impact statements, acquisition of right-of-way, etc., is approximately seven years away.

We do not feel that the construction of a left-turn refuge would materially change the accident pattern, but the improvement to the Club entrance should help cars entering the highway.

Very truly yours,

A. E. Johnson
Deputy State Highway Engineer

AEJ:ms
bc: F. B. Klaboe
E. S. Hunter
H. S. Coulter
C. O. Fredrickson
E. L. Everton

Salem

February 26, 1974

F. B. Klaboe
Administrator and State Highway Engineer

8-K

H. S. Coulter
Assistant State Highway Engineer

FBK Assignment No. 8
Astoria Golf Club Intersection
Mile Post 13.45, Oregon Coast Highway

Attached are field reports on the access problem at this intersection.

Mr. Everton has recommended installation of a left-turn refuge, but acknowledges that this would not alleviate the complaint of vehicles entering the highway from this access.

The intersection is within a section of the Oregon Coast Highway which has been recommended for improvement under the bond program, and it has been given a Priority No. 5 by Clatsop County.

Some survey work has been done on this section, but a considerable amount is still necessary, and it is probable that we would have to go the hearing route prior to any construction.

I have discussed this with Vic Wolfe and the Region. We are intending to resume work on the location as soon as possible, with construction probably scheduled for 1975 or 1976. The Region office has instructed Mr. Everton to proceed with improvement of the sight distance to the north by cutting back a bank and removing some small trees on the west side of the highway just north of the intersection.

In view of the mild accident experience, it is recommended that no further action be taken until reconstruction can be accomplished under the bond program.

CTK:ia
Att.
cc T. W. Litchfield

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: 4-05

Salem, Oregon

February 22, 1974

FROM: T. W. Litchfield
REGION OPERATIONS ENGINEER

TO: H. S. Coulter
ASSISTANT HIGHWAY ENGINEER

SUBJECT: Assignment HSC 193
Astoria Golf Club
Intersection
Sunset Beach Road
Mile Post 13.45
Oregon Coast Highway
Clatsop County

You will find attached reports Eldon Everton, District Engineer, and Rick Kuehn, Regional Traffic Engineer, regarding the above captioned intersection. Mr. Everton recommends we install a left turn refuge on the Oregon Coast Highway but acknowledges that this construction would not make it easier for vehicles entering the Oregon Coast Highway from Sunset Beach Road. Mr. Kuehn supports this position and recommends that no action be taken at this time since nothing short of a traffic light would alleviate the complaint.

You will note Mr. Everton indicates the Clatsop County Committee for District 1 is considering reconstruction of the Oregon Coast Highway between mile post 12.6 and mile post 14, which would include not only this intersection but the reverse curve north of this area.

I suggest you advise Mr. W. F. Monnes of these facts and also advise him that our maintenance forces will improve the sight distance to the north as indicated in Mr. Everton's letter.

TWL:dcb
Attachments
cc: E. L. Everton (w/copy of R. Kuehn's Report)

Note to Mr. Everton: Please improve the sight distance to the north as you suggest in your letter.

RECEIVED
FEB 25 1974
Office of
Assistant State Highway Engineer

FORM 81 734 3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

February 1, 1974

REGION 2 ENGINEER
RECEIVED
FEB 1 1974
RE | RCE | RME | RTE | ROE
ULE | GEO | TA | FILE

FILE: 4-05

FROM: Rick Kuehn R.K.
REGION TRAFFIC ENGINEER

TO: C. O. Fredrickson
REGIONAL ENGINEER

SUBJECT: Intersection Investigation
Oregon Coast Highway at
Sunset Beach Road, US 101
Highway #9, MP 13.45

Attached is Eldon's report on the subject intersection. He has conducted a field investigation and has made a recommendation. I have requested the accident record at this intersection and will also make a recommendation.

During the period from January 1, 1969 to October 31, 1973 there were 9 reported accidents at this intersection. There were no fatalities but 8 people were injured. All of these accidents were either rear-end or turning type. 3 northbound rear-end accidents and 1 southbound turning accident could have been prevented by a left turn refuge. It is assumed that two of the northbound rear-end accidents occurred because of a left turn manuever, however, this was not stated on the accident listing. The other northbound rear-end accident was the result of a right turn manuever off of the highway into a private driveway. This is not an exceptionally high number of preventable accidents, for this long a period. In his report Eldon mentioned the steepness of the side road approach to this intersection. I would agree with him that this is potentially quite hazardous, however, this is not borne out by the collision diagram. There has been only 2 accidents which involve vehicles entering the highway from Sunset Beach Road.

The 1972 ADT for this section of US 101 was 6,500 vehicles. The maximum summer time peak volume would be considerably higher than this figure. In his letter Mr. Monnes outlined the difficulty Sunset Beach Road traffic has entering the highway. With the volume US 101 is carrying at this point, the sideroad traffic very likely does have difficulty at times entering US 101, however, there is nothing except a traffic signal which could help this situation and I am sure that the sideroad volume at this point would not warrant a signal.

Eldon recommends a left turn refuge and a deceleration lane. While there have been some accidents which would have been prevented by these improvements, I do not feel that the number of these accidents warrants the expenditure of the necessary funds,

especially since the main complaint has been the difficulty of sideroad traffic entering the highway and these improvements could very well worsen that situation. The intersection is properly bracketed with sideroad symbol signs and it is my recommendation that we do nothing more at this time, especially if this entire section is being considered for improvement under the bond program.

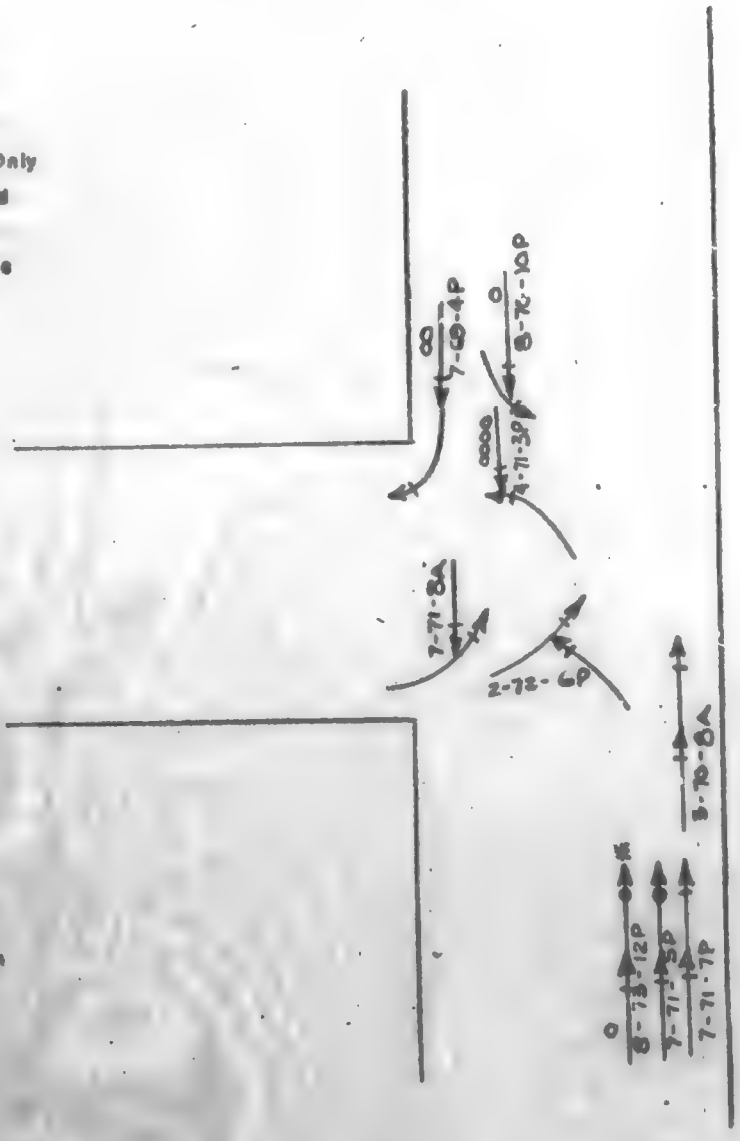
RK/ek

OREGON STATE HIGHWAY DIVISION
TRAFFIC ENGINEERING SECTION
ACCIDENT ANALYSIS
COLLISION DIAGRAM

City of – County CLATSOP
Intersection of US 101 and SUNSET BEACH RD
Highway Number 9 MP 13.45
Period Covered 1/1/69 to 10/31/73
Compiled by _____ Drawn by RAK Date 1/21/74

LEGEND

- Person Killed
- Pedestrian Killed
- Person Injured
- Pedestrian Injured
- Property Damage Only
- Collision – Rear-end
- Collision – Head-on
- Collision – Sideswipe
- Path of Pedestrian
- Path of Vehicle
- Path of Animal
- Vehicle Moving
- Vehicle Stopped
- Vehicle Backing
- Properly Parked
- Improperly Parked
- Vehicle Overturned
- Vehicle Skidded

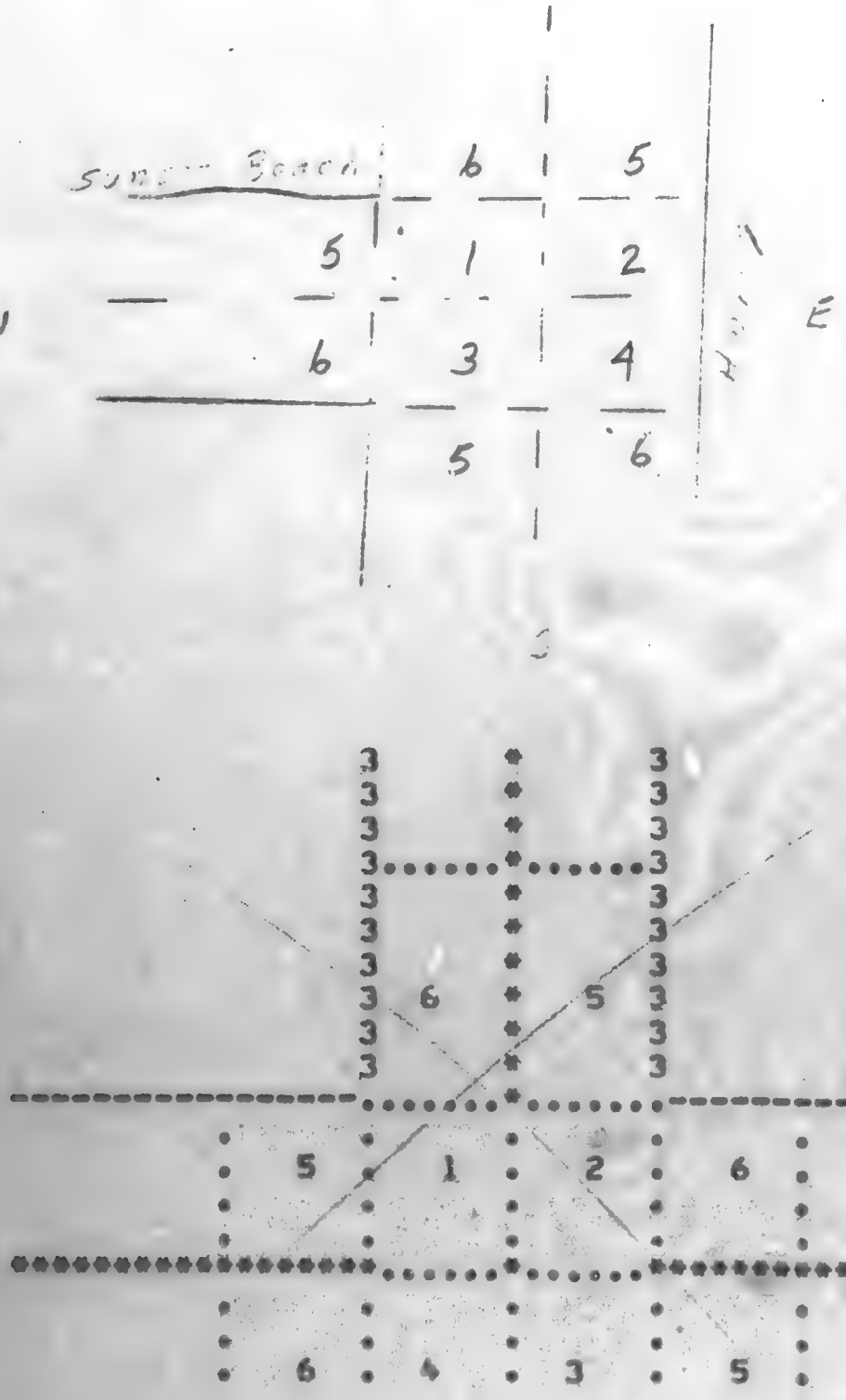


* STOPPED PRIOR TO LEFT TURN

Collision Type	1969 & 1970				1971				1972				10 MOS 1973				TOTAL			
	Fatal	Non-fatal	Prop. Damage	Total	Fatal	Non-fatal	Prop Damage	Total	Fatal	Non-fatal	Prop Damage	Total	Fatal	Non-fatal	Prop. Damage	Total	Fatal	Non-fatal	Prop Damage	Total
Angle																				
Head-on														1		1		2	3	5
Rear-end		1	1	2			2	2												
Sideswipe																		2	2	4
Turning Movement		1		1		1	1	2			1	1								
Parking																				
Non-collision																				
Fixed Object																				
Pedestrian																				
Backing																				
Misc.																				
TOTAL		2	1	3		1	3	4			1	1		1		1		4	5	9

Form E-261-6-70

INTERSECTIONAL COLLISION HISTORY


Sunset Beach
6
5
5
1
2
W
E
6
3
4
5
6
3
3
3

ERSECTIONAL COLLISION HISTORY

CITY:

COUNTY: CLATSOP

INTERSECTION OF: OREGON COAST HWY
SUNSET BEACH RD

HIGHWAY NUMBER: 0 009 OREGON COAST HWY
MILEPOINT: 13.45

PERIOD COVERED: 01/01/69 TO 10/31/73

DATE PREPARED: 01/02/74

SEVERITY CODES

CODE	DESCRIPTION
F	FATALITY
I	INJURY
PDO	PROPERTY DAMAGE ONLY

ZONE	COLLISION TYPE	DATE	TIME	WEATHER	VEHICLE NO.	VEHICLE TYPE	MOVEMENT
1	REAR-END	07-12-9	04PM	CLEAR	1	MOTORCYCLE	STRAIGHT
					2	PASS VEH	TURNING
	SEVERITY	2I					
3	TURNING MOVEMENT	04-18-1	03PM	CLEAR	1	PASS VEH	STRAIGHT
					2	PASS VEH	TURNING
	SEVERITY	4I					
	TURNING MOVEMENT	07-19-1	08AM	CLEAR	1	PASS VEH	TURNING
					2	PASS VEH	STRAIGHT
	SEVERITY	PDO					
4	REAR-END	03-11-0	08AM	RAIN	1	PASS VEH	STRAIGHT
					2	PASS VEH	STOPPED
	SEVERITY	PDO					
	TURNING MOVEMENT	08-02-0	10PM	CLOUDY	1	PASS VEH	STRAIGHT
					2	PASS VEH	TURNING
	SEVERITY	1I					
	TURNING MOVEMENT	02-02-2	06PM	CLEAR	1	PASS VEH	TURNING
					2	PASS VEH	TURNING
	SEVERITY	PDO					
6S	REAR-END	07-04-1	07PM	CLEAR	1	PASS VEH	STRAIGHT
					2	PASS VEH	STRAIGHT
	SEVERITY	PDO					
	REAR-END	07-18-1	05PM	CLEAR	1	PASS VEH	STRAIGHT
					2	PASS VEH	STOPPED
	SEVERITY	PDO					
	REAR-END	08-30-3	NOON	RAIN	1	PASS VEH	STRAIGHT
					2	PASS VEH	STOPPED
	SEVERITY	1I					

VEHICLE DESCRIPTION PAGE 1

	MOVEMENT	FROM	TO	DRIVER ACTION	DRIVER ERROR
E	STRAIGHT AHEAD	N	S	NONE	NOT DECR SPEED
	TURNING RIGHT	N	W	NONE	NONE
	STRAIGHT AHEAD	N	S	NONE	NONE
	TURNING LEFT	S	W	NONE	LFT TURN/TRAFFIC
	TURNING LEFT	W	N	PROCD AFTER STOP	NO RIGHT OF WAY
	STRAIGHT AHEAD	N	S	NONE	NONE
H	STRAIGHT AHEAD	S	N	NONE	DISREG DRV SIGNL
H	STOPPED IN TRAFFIC	S	N	ENTR ALLEY/DRIVE	NONE
H	STRAIGHT AHEAD	N	S	NONE	NONE
H	TURNING LEFT	N	E	ENTR ALLEY/DRIVE	TURN F/WRG LANE
H	TURNING LEFT	W	N	PROCD AFTER STOP	NO RIGHT OF WAY
H	TURNING LEFT	S	W	NONE	NONE
EH	STRAIGHT AHEAD	S	N	NONE	NOT DECR SPEED
EH	STRAIGHT AHEAD	S	N	SLOWED DOWN	NONE
EH	STRAIGHT AHEAD	S	N	NONE	HIT STP/PARK VEH
EH	STOPPED IN TRAFFIC	S	N	STOPPED /TRAFFIC	NONE
VEH	STRAIGHT AHEAD	S	N	SKIDDED	FOLLOW TOO CLOSE
VEH	STOPPED IN TRAFFIC	S	N	STOPPED /LFT TRN	NONE

INTERSECTIONAL COLLISION HISTORY SUMMARY

	01/01/69 TO 01/01/70				01/01/70 TO 01/01/71				0
	FATAL	NON-FATAL	PROP. DAMAGE	TOTAL	FATAL	NON-FATAL	PROP. DAMAGE	TOTAL	FA
ANGLE	0	0	0		0	0	0		
HEAD-ON	0	0	0		0	0	0		
REAR-END	0	1	0	1	0	0	1	1	
SIDESWIPE-MEETING	0	0	0		0	0	0		
SIDESWIPE-OVERTAKING	0	0	0		0	0	0		
TURNING MOVEMENT	0	0	0		0	1	0	1	
PARKING	0	0	0		0	0	0		
NON-COLLISION	0	0	0		0	0	0		
FIXED OBJECT	0	0	0		0	0	0		
PEDESTRIAN	0	0	0		0	0	0		
BACKING	0	0	0		0	0	0		
MISC.	0	0	0		0	0	0		
TOTAL	0	1	0	1	0	1	1	2	

	01/01/72 TO 01/01/73				01/01/73 TO 10/31/73				
	FATAL	NON-FATAL	PROP. DAMAGE	TOTAL	FATAL	NON-FATAL	PROP. DAMAGE	TOTAL	FA
ANGLE	0	0	0		0	0	0		
HEAD-ON	0	0	0		0	0	0		
REAR-END	0	0	0		0	1	0	1	
SIDESWIPE-MEETING	0	0	0		0	0	0		
SIDESWIPE-OVERTAKING	0	0	0		0	0	0		
TURNING MOVEMENT	0	0	1	1	0	0	0		
PARKING	0	0	0		0	0	0		
NON-COLLISION	0	0	0		0	0	0		
FIXED OBJECT	0	0	0		0	0	0		
PEDESTRIAN	0	0	0		0	0	0		
BACKING	0	0	0		0	0	0		
MISC.	0	0	0		0	0	0		
TOTAL	0	0	1	1	0	1	0	1	

ECTIONAL COLLISION HISTORY SUMMARY

01/01/70 TO 01/01/71

FATAL	NON-FATAL	PROP. DAMAGE	TOTAL
0	0	0	
0	0	0	
0	0	1	1
0	0	0	
0	0	0	
0	1	0	1
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	1	1	2

01/01/71 TO 01/01/72

FATAL	NON-FATAL	PROP. DAMAGE	TOTAL
0	0	0	
0	0	0	
0	0	2	2
0	0	0	
0	0	0	
0	1	1	2
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	1	3	4

01/01/73 TO 10/31/73

FATAL	NON-FATAL	PROP. DAMAGE	TOTAL
0	0	0	
0	0	0	
0	1	0	1
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	1	0	1

TOTAL

FATAL	NON-FATAL	PROP. DAMAGE	TOTAL
0	0	0	
0	0	0	
0	0	3	5
0	0	0	
0	0	2	4
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	0	0	
0	4	5	9

4-05

FORM C-30 (REV. 10-69)

REGION 2 ENGINEER
RECEIVED
JAN 1 1 1974
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OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Astoria, Oregon
10 January 1974

To: C. O. Frdrickson
Regional Engineer
Region II

SUBJECT: Conditions on Highway 101
Astoria Golf Club Turnoff
HSC#193
Region Assignment # 1345

The subject location is at M.P. 13.45 on the Oregon Coast Highway and is the junction of the Sunset Beach Road, which is a county road.

Shortly after receiving the letter from Mr. Monnes of the Astoria Golf and Country Club, I called Rick Kuehn and requested an accident record for this intersection. I have yet to receive a copy of this record at this office, but it should be at your office and available for inclusion with this report.

I have been aware of this particular intersection for some time and have often thought of constructing a left turn lane and deceleration lane, but the money has not been available.

The sight distance is 600'+ to the north and 1000'+ to the south. This is a great deal more than many intersections so I do not feel that the alignment is what is creating the problems. I could improve the sight distance to the north by approximately 200' by cutting back a bank and removing some small trees on the west side of the Oregon Coast Highway just north of the intersection. The Sunset Beach Road is on quite a grade in approaching the Oregon Coast Highway and there is no flat level spot when waiting to approach onto the Oregon Coast Highway. This condition is one of the main causes of the problem that we have at this intersection.

I feel that a left turn refuge and deceleration lane is needed at this intersection. We now have ample R/W so that this could be constructed without having to purchase any additional. This will improve the safety of the intersection but will not make it any easier for anyone trying to make a left turn from the Sunset Beach Road to the Oregon Coast Highway. In fact, it might even delay you a slight bit as you are now able to jump out when you see an approaching car from the south slowing down and signaling for a left turn movement. The traffic behind this car has no way to pass so is being held back in his slowing action. With a left turn refuge this will not be the case.

I know that the Clatsop County committee that is now studying to select the bond projects for this district is considering the realignment and turn lanes from M.P. 12.6 to approximately M.P. 14 which would include this intersection as well as the bad "S" curve near the Woodrow Wilson Mink Farm. I feel that in Mr. Monnes should be advised of this and told that he should try and see that the committee is made aware of the number of people that feel this intersection should be included.

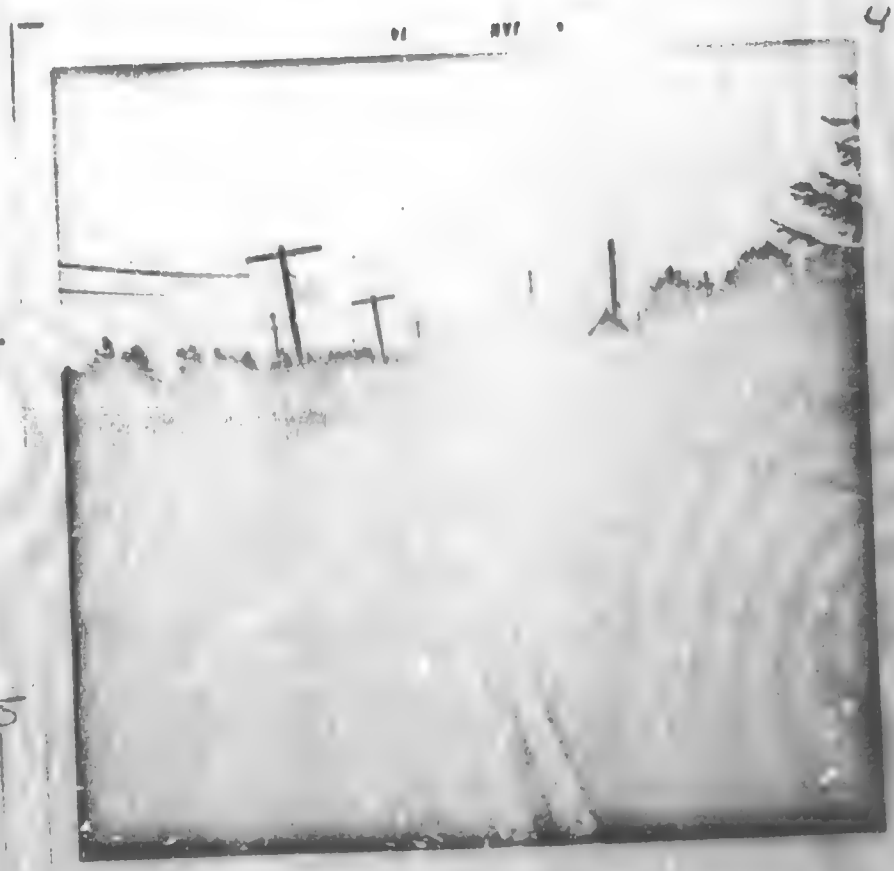
Eldon L. Everton
DISTRICT ENGINEER

ELE:bh
Enclosure

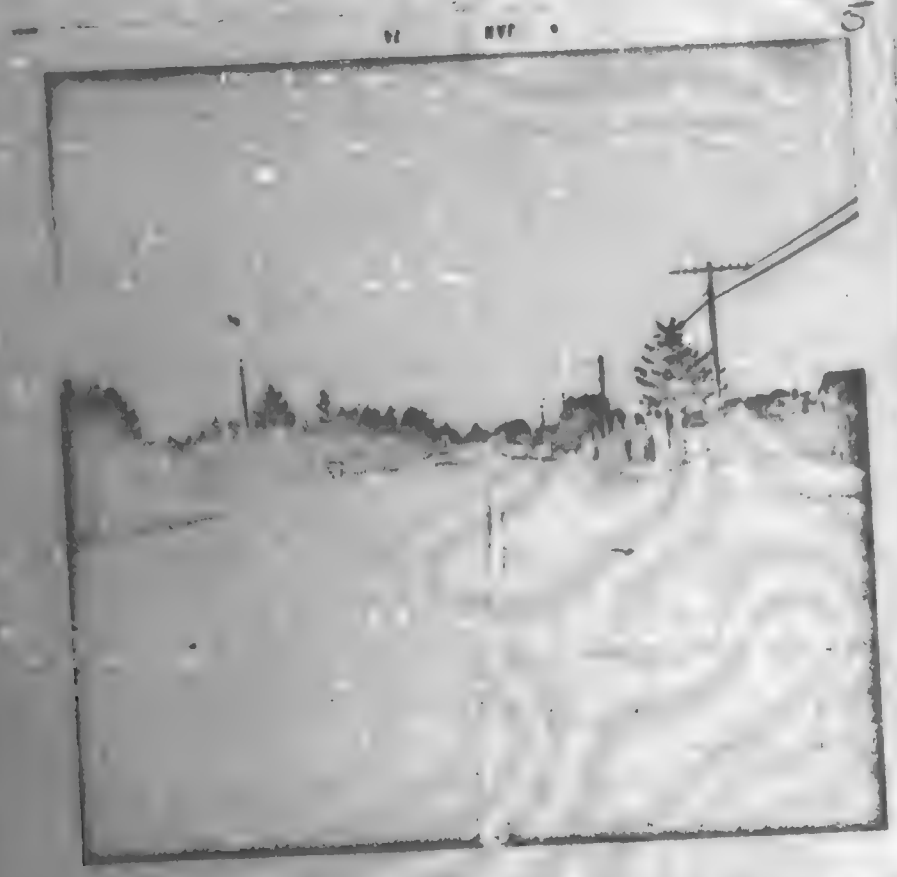
Looking north from approximately the same location and elevation of driver stopped at stop bar.

From intersection looking south at location and elevation of stopped car.

3. From east side of Oregon Coast Highway looking west down Sunset Beach Road. Notice the steep approach of the county road to the coast hwy. State car parked at stop bar.



4. From north of the approach looking south. The approach entrance at the approximate center of the noticeable curve left.



5. South of the approach looking north. Approach is just south of the country club sign that can be seen on the left side of the highway just above the pickup.

OREGON TRANSPORTATION COMMISSION

OFFICE OF GLENN L. JACKSON • c/o Pacific Power and Light Co. • Medford, Oregon • 97501

TOM McCALL
GOVERNOR

COMMISSIONERS
GLENN L. JACKSON, Chairman
Medford
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Eugene
ROBERT L. MITCHELL, Secretary
Portland
ROBERT E. VEATCH, Member
Klamath Falls
ANTHONY YTURRI, Member
Ontario

December 21, 1973

Mr. W. F. Monnes, President
Astoria Golf and Country Club
P. O. Box 148
Astoria, Oregon 97103

Dear Mr. Monnes:

I have your letter of December 18 relative to the hazardous condition existing on Highway 101 at the Astoria Golf and Country Club turnoff.

I am familiar with the problem inasmuch as I have had one close call on my way into the club to contribute to the financial welfare of a couple of your esteemed members, Mr. Sandoz and Mr. McGowan.

Money is getting more scarce by the day because of the reduction in gasoline tax revenues but I will have someone take a look and see what can be done.

Sincerely,

Glenn Jackson

GLJackson
ng

cc: George Baldwin

RECEIVED
STATE HWY ENGR
DEC 24 '73
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

RECEIVED
DEC 24 1973
OFFICE OF
DIRECTOR of TRANSPORTATION

Astoria Golf and Country Club · P.O. Box 148 · Astoria, Oregon 97103

CLUBHOUSE 861-2211
PRO SHOP 861-2545

December 18, 1973

Mr. Glenn L. Jackson
C/O Pacific Power & Light Co.
Medford, Oregon 97501

Dear Mr. Jackson;

I have long been concerned with the hazardous conditions existing on highway 101 at the Astoria Golf and Country Club turn off. Since being elected president of that Club my concern has heightened. Accordingly, I am taking this opportunity to register a formal request that a traffic safety analysis be made of highway 101 in the vicinity of the Country Club turn off and that priority consideration be given to improving that stretch. The Board of Directors of this Club share my concern and join with me in this request.

The hazard that exists, as I see it, is a combination of a narrow road, blind curves, extremely heavy peak traffic and the normal human tendency to take undue chances when frustrated and irritated. The road curves a fairly short distance either side of the Club entrance road making it impossible to see traffic very far down the road. The entrance road intersection is, in fact, situated on the outside of a curve of the highway and by its very location causes a potential hazard to cars awaiting highway access. The peak summer traffic on this stretch is very heavy and it coincides with the peak activity at the Country Club and the heaviest use of the same road to Sunset Beach and the ocean access road beyond. Long delays in gaining access to highway 101 are often encountered and a good deal of patience is required to resist darting out onto the highway at the first available gap in traffic, whether or not that gap provides an adequate safety margin. At times the only safe course

is a right turn toward Seaside and a reversal of direction somewhere down 101 where such a reversal might be less hazardous. Everyone is not willing to suffer the the inconvenience of the safer course.

Although the traffic flow is generally reduced significantly in the winter time, the hazard is only slightly lessened. There is substantial traffic at all seasons and the winter brings early darkness and frequent rain. Afternoon golf matches and virtually all social functions result in departure from the Club during darkness. The diminished visibility and less acute depth perception caused by the darkness and rain, coupled with the usually slick road, make this intersection extremely hazardous in the winter time.

I am most interested in preventing a serious, or even fatal accident on this stretch of highway. Your early attention to this matter would be most appreciated.

Very truly yours,

W.F. Mennes
President
ASTORIA GOLF AND COUNTRY CLUB

C.C. Mr. Elden Everton, Mr. Glenn L. Jackson, Mr. W.C. Willson
WFM/doh

8949

~~PRO-6-E~~

June 4, 1975

TO G. L. Green, Division Engineer
Federal Highway Administration

FROM L. W. Rullen
Project Management Engineer

SUBJECT Project No. RF-115(24)
S. Unit, Astoria-Camp Rilea Sec.

We are forwarding three copies of a project agreement estimate and four copies of the project agreement for the subject project. Three copies of the project agreement have been signed by a Highway official.

CL:js

Oregon State Highway Division
Salem, Oregon, June 4, 1975

Federal Aid Project
No. RF-115(24)

S. UNIT, ASTORIA-CAMP RILEA SECTION
OREGON COAST HWY.
CLATSOP COUNTY

Project Agreement Estimate.

Type Code P.E.
Preliminary Engineering

Preliminary Engineering	All Required	$15,500.00
	Total	$15,500.00

Length of Project - - - - - 2.77 miles

SUMMARY OF FUNDS

Description	Total Cost	Federal Funds	State Funds
P.E.	$15,500.00	$12,100.00	$3,400.00
Retain in Program PS & E Preparation	13,500.00	10,500.00	3,000.00
Total	$29,000.00	$22,600.00	$6,400.00

Group 1 - 100%

Prefix No.: 4-1920

COPY

Form Approved; O.M.B. No. 04-R2089

TO BE COMPLETED BY FHWA MONTHLY TRANSACTION NO. 6-115	U. S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION **FEDERAL-AID PROJECT AGREEMENT**	STATE Oregon COUNTY Clatsop PROJECT NO. RF-115(24)

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

US 101, 2.5 mi. S.W. of Astoria, S.W. 2.77 mi.

PROJECT CLASSIFICATION OR PHASE OF WORK		EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH (Miles)
HIGHWAY PLANNING AND RESEARCH (HP & R)			
PRELIMINARY ENGINEERING	Field Work	5-28-75	2.77
RIGHTS-OF-WAY			
CONSTRUCTION			
OTHER (Specify)			

FUNDS Pre Rate 78.19%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 15,500	$ 12,190

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By Ed Hunsaker
Assistant State Highway Engineer
(Title)

By _____
(Title)

By _____
(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By Glen W. Boyle
(Division Engineer)
for: G. L. Green

Date executed by Division Engineer JUN 6 197

Form PR-2 (Rev. 9-74) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PREPARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation.

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects. No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtedness of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 301(c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Engineer concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

8949

OREGON STATE HIGHWAY DIVISION

REGION 2

2960 E. STATE STREET • SALEM, OREGON • 97310 • Phone 378-2626

June 2, 1975

ROBERT STRAUB
GOVERNOR

F. B. KLABOE
Administrator of Highways

Clatsop County Board of
Commissioners
Courthouse
Astoria, OR 97103

NOTED
E. S. HUNTER

Gentlemen:

Subject: Youngs Bay-Surf Pines Section
Oregon Coast Highway

There are three units of the Oregon Coast Highway between Youngs Bay and Surf Pines. The northerly unit is called the South Unit, Astoria-Camp Rilea Section, and is tentatively included on the six-year construction program. The southerly unit is being reworked as maintenance funds permit.

cor 21-2
101-Clatsop

The remaining unit fronts Mr. Woodrow C. Willson's property. The status of that reconstruction was explained to Mr. Willson by a May 22, 1975, letter as follows:

"The field location on the section of US 101 bordering your property, will be continued as soon as the current construction season ends. The amount of work which has been assigned to Gareld Inloes' office in Astoria, during this construction season does not leave him an adequate number of people to pursue both this work and the location work on this section of highway. It is our intention, to pursue this location as vigorously as we can with the personnel we have available to do the work, and to submit this location for approval at the earliest possible date.

The project, is one to which the Clatsop-Tillamook Intergovernmental Council assigned to high priority on the bond program. It was not, however, a project which

RECEIVED
JUN 3 1975
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

could be put together quickly enough to take advantage of the first years issue of bond monies. At the present time, it is uncertain when additional bonds will be sold, since the current economic situation has made it uncertain as to when the Highway Division would feel capable of obtaining a reasonable bond interest rate and insuring their capability of paying both the interest and principle on future bond sales. Until such time as the determination is made of future highway financing, it will be impossible to determine at just what time this project could be constructed. It is hoped, that some action will be taken by the current legislature to provide adequate funding for construction of projects of this type, but this is something which will not be clarified until current legislation is completed and put into operation.

It is our intention, to complete the work on this survey as soon as the construction season ends this fall and to submit it for approval and for design, so that should funding become available, we will be able to proceed with construction. We will try to keep you informed of any changes in the funding situation and of any adjustments in the time table for doing this work.

The south unit of the Astoria-Camp Rilea Section is currently on the suggested six-year program for fiscal year 1976. This program has been submitted to the Transportation Commission, and is still subject to their approval. It is hoped, that this project will remain on the schedule, where it has been placed. This schedule is, of course, highly dependent on the level of Federal Funding and the provisions of the Federal Aid ACTS, under which we receive these funds. Both the level of funding, the provisions of the ACT and the economic situation, will have a considerable bearing on what projects can be constructed and on the total size of the Highway Division's construction program.

I am sorry that we can't give you anymore concrete information at this time. We will continue with the location of this section as time and manpower allows, and will attempt to present it for consideration at the earliest possible date. A copy of your letter and the attached clipping regarding the accident on 101, will be forwarded to the Highway Administration for their information. Thank you for writing and keeping us aware of the problems which you face."

Should there be further information or assistance this office can furnish you in this matter, please advise.

Very truly yours,

ORIGINAL SIGNED BY
G. W. WIMER

Gerald W. Wimer
REGION CONSTRUCTION ENGINEER

GWW/db

cc: E. S. Hunter w/attach.
E. L. Everton w/attach.
Gary Inloes w/attach.

Hold

300 C

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103

May 14, 1975

State Division of Highways
Atten: C. O. Fredrickson
Region II Engineer
2960 E. State Street
Salem, Oregon 97310

Dear Mr. Fredrickson:

Mr. W. C. Willson has contacted the Clatsop County Board of Commissioners by letter of May 14, 1975, and in person.

Highway 101 from Surf Pines to the intersection of the Youngs Bay section is not adequate to handle the volume of traffic that it carries at this time, in fact, it has been a problem since 1969.

As the improvement to this important link in our highway system is long overdue, the Clatsop County Board of Commissioners would like to join Mr. Willson and the host of other concerned citizens in urging the State Highway officials to give early consideration for improvements to this vital link in our highway system.

BOARD OF COUNTY COMMISSIONERS
CLATSOP COUNTY, OREGON

BY _____
Commissioner

BY _____
Commissioner

BY _____
Commissioner

AEA:ss
Encl: 5-14-75 Willson Letter
To Board of Commissioners

May 14, 1975

Clatsop County Board of Commissioners
Court House
Astoria, Oregon

Gentlemen:

Last week I discussed with Mr. Johnson and Mr. Ordway a conversation I recently had with Chuck Fredrickson, Region II Engineer, of the Oregon State Highway Department. At this time Mr. Fredrickson indicated that if some pressure was placed on him by way of letters from your office, chambers of commerce, C.T.I.C. etc. that perhaps we might get some action.

I have contacted the Seaside Chamber and will speak to the Warrenton Chamber today. Maybe you could advise me as to the best way to approach the C.T.I.C.

I think you people are aware of what my problem and situation is in regard to Highway 101. In brief, I will mention the first survey was made through my property in January of 1969, the second in August of 1969. The property was appraised by Mr. Charlesworth, right-of-way agent, in December of 1970. Another survey was started in February 1975 but delayed until a later date.

I have put considerable effort forth to get a decision from the highway department in regard to their plans for this section. I feel that I have been left hanging about long enough. The surveys place my property and business in an unsaleable position and likewise puts me in a state of anxiety wondering if I should make certain improvements or expand my operation somewhat. In fact, I feel as though I am condemned without compensation.

Enclosed is a copy of my letter to Mr. Fredrickson which is more in detail. It might be useful to you if you have correspondence with him.

Thank you for your time and consideration.

Sincerely,

W.C. Willson
Rt. 1 Box 567-V
Warrenton, Oregon 97146

.1979 S. Unit, Astoria - 8949
.Camp Rilea Sec. 101.
.(Gr, pave, str, & sign.) #5

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

Transaction No. 6-11

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: Oregon

DATE: 05-28-75

BY (Signature): Mr. Rulien's May 12, 1975 letter

TITLE: Project Management Engineer

CLASS OF FEDERAL FUNDS: ☐ FAI ☒ FAP ☐ FAU ☐ FAS ☐ OTHERS

STAGE 1 * ITEM NOS. _____ THRU _____

STAGE 2 ITEM NOS. 51 THRU _____

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS
51	RF-115(24)	2.77	$29,000	$22,600

OTHER IDENTIFICATION AND/OR REMARKS (State)

Location

S. Unit Astoria
Camp Riles Section
Clatsop County
State of Oregon

Work

Preliminary Engineering

NOTED
E. B. HUNTER

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STATE HWY ENGR
MAY 30 75
REFER TO
FOR
Info | Inves | R/D | D/R | Stat | Act | File

5-28-75

REMARKS (Division)

You are authorized to proceed with all phases of Preliminary Engineering necessary to obtain PS & E approval.

6-2-75
ORIGINAL TO
Lu Rulien

RECEIVED
JUN 2 1975
OFFICE OF

RECOMMENDED		APPROVED	
DATE	SIGNATURE AND TITLE	DATE 05-2?-75	SIGNATURE AND TITLE

* Program approval and any authorization to proceed with a Stage 1 project shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, an obligation on the part of the Federal Government to provide Federal funds for the undertaking.

8949

FORM PR-48
(Rev. 8-71)

GPO 975-69

8949

April 9, 1975

Clatsop County Board
of Commissioners
County Courthouse
Astoria, Oregon 97103

Gentlemen:

Your letter of March 26 referred to the construction of the Astoria-Camp Rilea Section of US101 and the Skipanon River Bridge projects.

Work is currently under way on both projects. The Skipanon River Bridge project is scheduled for construction during the summer of 1976.

It has been determined that Draft and Final Environmental Statements are required on the Astoria-Camp Rilea Section. Preparation of the Draft EIS is under way and our estimate now is to have an approved Final EIS by March 1, 1976. There is a considerable amount of right-of-way to acquire after the EIS has been approved. If adequate funds continue to be available this project will be contracted next year.

I appreciate the opportunity to clarify this matter.

Very truly yours,

F. B. Klaboe, Administrator
and State Highway Engineer

bc: A. E. Johnson
E. S. Hunter
L. W. Rulien

GNH:ljt srb

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103

March 26, 1975

RECEIVED
MAR 31 1975
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Mr. Fred Klaboe
State Department of Transportation
Highway Building
Salem, Oregon 97310

Dear Mr. Klaboe:

It has been indicated by recent news announcements that Clatsop County will not receive any of the recently released Federal Highway Funds for State Highway construction in our county.

Although we recognize that the backlog of needed projects in Oregon is large, we believe that additional consideration of two very critical projects in Clatsop County is warranted. The project we would wish you to give additional consideration to is the south section of the Warrenton By-Pass, and the Skipanon Bridge project.

Clatsop County has, through gifts and purchases by the State, conveyed title to, what we were led to believe, adequate right-of-way for the Warrenton By-Pass section. This occurred prior to the need for an environmental impact statement, which should allow for the project to move into final design stages in a short time. This section has many hazardous sections, such as a bad curve called "dead man's curve" on the north, and the combination of Burlington Northern Railway and the Fort Steven's State Park turn-offs.

The Skipanon Bridge in downtown Warrenton has caused some major problems in safety, but mainly should have a high priority because o. the inconvenience caused when it is opened. It causes the traffic to detour for many hours because it is a lift out span which has long outlasted its usefulness.

From the afore mentioned concerns, the Clatsop County Board of Commissioners submit this request for reconsideration of your assignment of priorities to include these projects in any future consideration.

BOARD OF COUNTY COMMISSIONERS
CLATSOP COUNTY, OREGON

BY _____ Commissioner

BY _____ Commissioner

BY _____ Commissioner

a E RIB
of FSK
hand delivered

RECEIVED
STATE HWY ENGR
MAR 31 '75
REFER TO
FOR
Info | Imes | R/D | D/R | Sign | Act | File

NOTED
A. E. JOHNSON

LGO:ss

8947

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

March 27, 1975

FILE:

FROM: Donald L. Trout
Design Office Engineer

TO: MEMORANDUM TO THE FILES

SUBJECT: Status
S. Unit, Astoria-Camp Rilea Sec.
Oregon Coast Highway
Clatsop County
2.2 Miles
$2,500,000

The following information was gathered together today concerning this project:

1. Mr. Klaboe wants to go to contract in Spring 1976.

2. The Environmental Section is [redacted] EIS. They plan to have it complete this fall for a new hearing and necessary approvals. The corridor and design approvals made in 1969 are no longer valid. Mr. Potter says the EIS, Hearing and Design approval are to be handled as a package like they are doing on I-205.

3. Mr. Oakes in R/W says nine months are required to clear the right-of-way and this cannot begin until design approval is made. They have been requested by Mr. Schroeder to cut this time. There are some [redacted] and [redacted] is involved in several of them. Federal money for the right-of-way is apparently part of the time problem. If someone would approve use of state funds for right-of-way, this would apparently help.

4. The Final Design is approximately [redacted]. Mr. Terpin says there will be no problem in completing plans for a letting next spring.

start 8-1-75 Cost estimate ?

5. There is a bridge across the [redacted]. Preliminary design has been made. It is a simple design type structure and Mr. Ellison says a spring letting would pose no problem. A Coast Guard permit is not required.

6. There are apparently t[redacted]s on the job - one is in a marshy area near the beginning of the project and the other is at the Skippanon River bridge where some channel work and riprap work will need to be done under the new structure. A removal/fill permit will be required for these. This should be applied for as soon as plans are available.

REFERRED TO

Board, Read,
Cole, Sample,
Ellison, Watson,
Hager, Wolfe,
Discuss, Do, File Copy, Due
BY FINAL DESIGN ENGINEER

1 Versteeg
2 A. Olson
3 Terpin
4 Scott
5 Swenson
R. Olson
Trout

RECEIVED
MAR 27 1975
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up
Other

8949

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

DATE March 27, 1975

TO R. L. Schroeder
Assistant State Highway Engineer

FROM John R. Oakes
Assistant R/W Engineer

SUBJECT South Unit, Astoria Camp Rilea Section
Oregon Coast Highway
Clatsop County

The remaining right of way on this project will require at least nine months to acquire as there are at least seven relocations required. However, there is a possible alternative that might reduce the necessity for the right-of-way involving relocation. This alternative is based upon our map which was initially constructed in 1962. If additional housing has been built since that time, we will not be aware of it.

A project could be awarded from the end of the north unit to cross the railroad, stay to the east of the existing alignment and end with a connection into the existing highway somewhere between station 295 and station 303. The reasons for the suggestion are as follows:

Originally right of way was acquired for the end of the North Unit, Astoria-Camp Rilea between station 174 and station 179. Later in redesigning the south unit, file 47912, left of station 174+50, 44036 left of 175 to 178, 44034 right of 174 to 176, 44037 right of 177 to 179 were added to the right of way. Two of these files apparently involve buildings, 47912 and 44036. If these files could be eliminated by going back to the original design, that would eliminate the need for relocation and the extra 90 days it causes.

The rest of the project to the railroad crossing appears to be clear of improved files. There are five files to acquire in this area that do not involve relocation.. After crossing the railroad, all the right of way has been acquired on the east side of the highway with the exception of files 35445, 47915, and the files southerly of station 303. There is no additional relocation required on this side of the highway to station 303.

There are a number of files to be acquired on the west side of the existing highway. Three files involve relocation, 35435 a garage, 35438 a garage, and 35439 a substantial home. There are six files not

Copy To
Potter
3-31-75

involving relocation in addition to these. Beyond station 303 there are four files on the east, one of which has been acquired and two not acquired which involve relocation. There are two files on the west side, neither involving relocation.

My suggestion, consequently, is to attempt to redesign the project so as to eliminate the immediate need for relocation. This will involve cancelling at least two files on the north end, restricting ourselves to the right of way purchased on the east side of the existing highway on the south end, at least in the area between station 270 and 275, and stopping the project at about Station 303.

JRO:ha
cc J. H. Versteeg,
Vic Wolfe,
C. O. Fredrickson
Rod Henry
Floyd Scott

8949

9

FORM E-30 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

March 19, 1975

SUBJECT: Smith Point (Astoria)
Roadside Improvement
Astoria - Camp Rilea
OREGON COAST Hwy.

To: E.S. Hunter
Asst. Highway Engineer
BUILDING

Attached is the plan you requested for Landscaping the subject area.

Planting includes a large percentage of lawn, some low growing shrubs in areas that will not interfere with visability and some larger shrubs in gore areas for traffic guidance. Also a hedge of junipers adjacent to city property to block the view from the highway.

All the area will be irrigated.

The latest estimate of cost is $73,000.

Yours truly,

Roy E. Olson

Roy E. Olson
Landscape Engineer

REO:bw

3-20-75
Vouchered
Passed w/plans
early letting
fee Landscaping funds
ESH
cc Bertsch

5949

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

DATE March ~~12~~ 17, 1975

TO F. B. Klaboe
Administrator & State Highway Engineer

FROM J. B. Boyd
Right of Way Engineer

SUBJECT Right of Way Status
South Unit Astoria Camp Rilea Section
Oregon Coast Highway

copies to Rt/W

In response to your note of March 7, 1975, this project has been on 'hold' for a long period of time. When we found that the location was moved back to the original center line, we inquired of Project Management as to whether we could proceed. They said that State funds were short so the approval was withheld.

In 1973 we provided a new estimate and asked by Project Management for a new authorization to purchase. This time the estimate amounted to $250,000. Mr. Young requested Federal Highway Administration programing on the project on March 11, 1974.

Due to the lack of an approved Environmental Impact Statement, the Federal Highway Administration has not approved the project.

EIS has not been started. Project must have full Action Plan requirements, will probably take 1 year or more.

JBB:ha
cc R. L. Schroeder
A. E. Johnson
Rod Henry
Chuck Fredrickson

3-17-75 Schroeder! What is status of EIS? Jim

is there a Draft?

NOTED
R. L. SCHROEDER

RECEIVED
MAR 18 1975
Office of Assistant State Highway Engineer

RECEIVED
STATE HWY ENGR
MAR 13 75
REFER TO
FOR
Info | Lmwy | R/D | D/R | Sgm | Act | File

NOTED
F. B. KLABOE

8949

FORM G-90 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

December 23, 1974

To: J. H. Versteeg
Road Design Engineer

SUBJECT: South Unit Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

I have discussed the attached report on subject section with Mr. Hunter this date and it is our feeling that we should follow Yarbrough's recommendations as outlined. If the recommended surcharge turns out to be as expensive as the subexcavation, we should probably take anotner look. Might be that we could decrease the surcharge from his recommendation and be willing to accept a minimal amount of subsidance and deformity.

I would be glad to discuss this with you if you so desire.

Victor D. Wolfe
Location Engineer

NOTED
E. S. HUNTER

VDW:mc

Att.

cc E. S. Hunter
C. O. Fredrickson
Fred Yarbrough

RECEIVED
DEC 26 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

8949

A

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

December 19, 1974

FILE:

FROM: Frank E. Terpin F.E.T.
Final Design Engineer

SUBJECT: Astoria-Camp Rilea Sec., So. Unit.
Oregon Coast Highway
Clatsop County

TO: MEMORANDUM TO THE FILES

Due to the present funding situation it is proposed to construct the subject project in stages.

The first stage would be the construction of the southbound lanes with eight foot shoulders from the beginning of the project to the railroad crossing. From that point to the end of the project the full four lane section would be constructed. Channelizations will be constructed at the beginning of the project and at the crossing of Dolphin Road.

The embankment foundation excavation will be made under that portion of the roadbed that is to be constructed in the first stage. It is possible that the material could be placed adjacent to the roadbed to act as a load to consolidate the unsuitable material.

This proposal is being investigated by Fred Yarbrough.

Stage construction of the project in this manner would require approximately 130,000 cubic yards of borrow material, 100,000 for the embankment foundation backfill and 30,000 for the topping of the subgrade. Also, 40,000 cubic yards of aggregate for the surfacing would be required.

In the event it is determined that the embankment foundation excavation must be wasted an area to dispose of approximately 100,000 cubic yards would need to be provided.

NOTED
E. S. HUNTER

FET:we
cc: E. S. Hunter
L. W. Rulien
Victor D. Wolfe
C. O. Fredrickson
C. G. Swenson
Fred Eriksen

RECEIVED
DEC 19 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

8949

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

FILE:

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

November 18, 1974

ORIGINAL SIGNED BY
J. H. VERSTEEG

FROM: J. H. Versteeg
Road Design Engineer

TO: C. O. Fredrickson
Region 2 Engineer

SUBJECT: Astoria-Camp Rilea Section,
South Unit
Oregon Coast Highway
Clatsop County

NOTED
E. S. HUNTER

A review of this project indicates that a two lane highway will provide adequate service to the public up to the design year of 1994. Our surfacing estimate for the two lane proposal is $641,000 and for the original four lane proposal is $978,000. Based on a possible savings of $337,000 in surfacing costs we propose to construct a two lane, 44' section at this location.

Attached is our one copy of this proposed plan along with data on cost estimates and capacity allowances. Please review and advise if you concur in this proposal.

JHV:jh
cc: E. S. Hunter
Victor D. Wolfe

RECEIVED
NOV 19 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

8949

Salem

September 5, 1974

E. S. Hunter
Assistant State Highway Engineer

L. W. Rullen
Project Management Engineer

Assessment and Project Category

Attached for your information is an assessment on the Astoria-Camp Rilea, So. Unit Section, concurred in by the FHWA indicating that the following environmental documentation is appropriate: Draft EIS.

Project Management classifies this section as a Category I project. Action Plan procedures must be implemented for all activities following corridor/design approval.

Attach.

DLG:dg

cc J. B. Boyd
L. E. George
W. J. Hurt
C. T. Keasey
J. H. Veenstra
V. D. White
H. S. Cox
G. A. Potter
D. E. Swan
C. O. Fredriksen
E. L. Everton

Form FHWA 121 (Rev. 6-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: August 30, 1974

In reply refer to: 1041DB.2

SUBJECT: Oregon Project RF-115(23)
Astoria-Camp Rilea (South Unit)
Oregon Coast Highway (U.S. 101)

FROM : G. L. Green, Division Engineer.

RECEIVED
SEP 5 1974
PROJECT MANAGEMENT SECTION

TO : Mr. F. B. Klaboe, Administrator & State Highway Engineer
Salem, Oregon

ATTN: L. W. Rulien

Attached is an approved copy of the Project Assessment for the subject project in which the type of document is agreed to be a draft EIS.

A field review of the proposal was made on August 28, 1974 with Dwight Smith, Project Manager, Gerry Wimer, Region Construction Engineer, and Ed Welch, Regional Environmentalist. It was agreed that a full impact statement would be required. This should include historical review of actions taken to date. The final statement should be available to the local affected area.

G. L. Green

RECEIVED
STATE HWY ENGR
SEP 4 74
REFER TO
FOR
Info | Prep | Inv | Dir | Sign | Ret | File

Attachment
Assessment

NOTED
A. E. JOHNSON

NOTED
R. L. SCHROEDER

BEN GIFFORD

RECEIVED
SEP 4 1974
Office of
Assistant State Highway Engineer

OREGON STATE HIGHWAY DIVISION
ENVIRONMENTAL SECTION

PROJECT ASSESSMENT

Project Manager Dwight A. Smith Date 17. July 1974

A. PROJECT IDENTIFICATION

Name of Project Astoria - Camp Rilea (South Unit) RF-115(-) Section

Location of Project Oregon Coast (U. S. 101) Highway

City Warrenton County Clatsop Region II (two)

Est. Cost $ 4,000,000 R/W & Constr. Only Length ±2.2 miles Prefix 4-1454

Contract Letting Oct.-Dec. 1975

B. BRIEF GENERAL DESCRIPTION OF PROJECT

This project involves grading, paving and building structures on a new alignment of US 101. The approximate length is 2.2 miles from the Warrenton-Astoria junction to the Camp Rilea road. (See attached map.) The improved alignment eliminates several curves on the existing facility and provides direct approaches to US 101 sections north and south of project. The new roadway will have four 12-foot travel lanes, 10-foot shoulders, and a 16-foot median area (narrower in the center portion of the project). Three frontage roads and three road connections are involved in the limited-access facility, as well as two structures -- a railroad crossing and a bridge over the Skipanon River. The project will involve extensive excavation and fill to provide the proper foundation. Waste material will be used to construct a 16-foot high berm to screen the aluminum plant (AMAX) from the highway. The majority of ROW has been acquired. Five families and one commercial establishment require relocation from ROW.

C. STATUS OF FHWA-OSHD ACTION

		Date
System Action	☐	NA
Program (PE) Approval	XX	Survey Design Approval 12-16-59
Corridor Approval	XX	6-17-69
Design Approval	XX	12-19-69
P.S. & E. Approval	☐	

D. PRELIMINARY STUDY REQUIREMENTS

	Yes	No
Study Area Environmental Inventory	☐	XX
Formal Environmental Classification Study	☐	XX
Formal Environmental Classification Study Completed	☐	XX

CATEGORY 1 PROJECT

E. STATUS OF PROJECT DEVELOPMENT

Reconnaisance	☐	Preliminary Design (Field)	☐
Location (Field)	☐	Preliminary Design (Office)	☐
Location (Office)	☐	Final Design	☒
		Contract Plans Completed	☐

PNRS No. _____

Date A-95 Submitted _____

Date Reply Received _____

Reply Not Required ☒

F. STATUS OF PUBLIC HEARINGS

			Date
Hearing Not Required	☐	Corridor Hearing Held	☐ _____
Hearing Not Requested	☐	Design Hearing Held	☐ _____
Hearing Requested	☐	Combination Hearing Held *	☒ 10-29-59

*Combination Hearing was on Smith Point (Astoria Camp Rilea, which includes this section.

G. RESOURCE PERSONNEL ALLOCATION

PERSONNEL	EFFORT REQUIRED*			COMMENT
	MINIMUM	AVERAGE	MAXIMUM	
Biologist			XXX	
Urban Economist			XXX	
Agricultural Economist		XXX		
Accoustical Engineer			XXX	
Air Quality Engineer			XXX	
Sociologist		XXX		
Urban Planner			XXX	
Landscape Architect	XXX			
Geologist		XXX		
Assistant Project Manager Water Quality		XXX		

*For the sake of clarification and mutual understanding the terms minimum, average, and maximum effort have been defined as follows:

MINIMUM - Research and Project Management Staff consultation. No formal typewritten report.

AVERAGE - Routine analysis. Short to medium length report including consideration of existing setting, probable impact, and steps to minimize harm.

MAXIMUM - Special detail of analysis. Comprehensive technical report.

H. BRIEF SYNOPSIS OF PROJECT

(Narrative)

TOPICAL AREAS

- History of Project (Begin with origin, if known, including public input).
- Purpose of Project (Expressed need or program relationship).
- Siting (Topographic and resource features).
- Major Effects (High impact features if determined). Expand Under "Basic Considerations", page 4.
- Other General Information.

The coastal highway (US 101) was completed in Clatsop County in the mid-1920's. In 1959, a survey was completed and a public hearing was held to provide a direct connection between Astoria and points south on US 101, (the Smith Point (Astoria) - Camp Rilea project). The North Unit, Astoria - Camp Rilea, was built in the mid 1960's with right-of-way being acquired for nearly all of the South Unit. The Northwest Aluminum Company, planning for a large aluminum reduction plant east of the northerly end of the South Unit, requested a westerly relocation of the highway. This alternative (L^3) location was investigated. However, when Northwest Aluminum was purchased by the American Metals Climax Corp. (AMAX) in 1970, the company reversed the decision and agreed with the original location.

The purpose of the project is to build a modern, 4-lane, controlled access highway, capable of moving increased volumes of traffic safely over a direct routing. Many hazardous curves and accesses on narrow US 101 will be eliminated. If the proposed $120-million AMAX plant is built, the new highway will be necessary to handle the anticipated transportation needs due to population growth and increased traffic demand in the Warrenton area. Present AMAX planning is for a 2,000-man construction work force and projected employment figures of 725 jobs plus 400 backup jobs in service and other businesses by 1975-76. The highway would be required to alleviate the impact of instant industrialization upon a small fishing and resort community (Warrenton's present population - 2,000).

(Use more space if required)

TOPICAL AREAS - Attachment

The siting is the greater Columbia River estuary, with the Skipanon River providing drainage in the project area. The land is swampy, with bogs, marshes and sand dunes. The area provides habitat for waterfowl and other wildlife. The larger trees have been logged, leaving parcels of alders, brush and smaller timber. The climate is mild with little season variation in temperatures. Average annual precipitation is 71± inches. The soil is silty clay covered with fibrous material (root systems). About half of the project area is within the city limits of Warrenton. AMAX's property borders the project on the northern end. Fort Stevens State Park, the most heavily used in Oregon, is in the vicinity. At the southerly end near the Camp Rilea road is the Clatsop Plains Pioneer Presbyterian Church, listed as a historic site by the Oregon Historical Society and included in the Statewide Inventory of Historic Sites and Buildings, maintained by Parks and Recreation Branch, OSHD.

The major environmental effects are increased user safety, increased mobility due to direct routing, residential and commercial dislocation, flora and fauna habitat destruction, potential drainage pattern changes, creation of a sand source and disposal of waste material.

The project will require foundation excavation of unsuitable materials and back filling with sand, approximately 200,000 cubic yards of sand being needed. Aggregate need is 43,000 tons. No bikeways are proposed, since the 10-foot shoulders would allow bicycle traffic. The Skipanon Bridge will be a three-slab concrete structure, 96 feet long by 78 feet wide.

I. BASIC CONSIDERATIONS

(Use whatever space is required but be brief)

1. RIGHT OF WAY REQUIREMENT

None or Not Significant ☐ Significant Amount ☒ (Explain and Assess)

The alignment of the proposed project requires new right-of-way, and a majority of the right-of-way has been secured. At the southerly end of the project, five (5) residences and one (1) commercial establishment still need to be acquired. Relocation for these owners is required. No public parks, wildlife refuges, game management areas, publicly owned recreational facilities or historic entities are affected.

2. WILL PROJECT CHANGE ANY FUNCTIONAL CHARACTERISTICS OF:

a. Existing Facility? No ☐ Yes ☒ (Explain and Assess)

The proposal changes this section of US 101 to four lanes and limited access. Completion of this section will create a more direct connection between Astoria and points south of Camp Rilea. The highway has the potential to change traffic patterns in the area.

b. Adjacent Land Use? No ☐ Yes ☒ (Explain and Assess)

The highway will require converting some residential and commercial land and much undeveloped land to highway use. Exposing undeveloped land may create strip development along the connecting roads. Agricultural property is not affected to any degree.

c. Adjacent Land Access? No ☐ Yes ☒ (Explain and Assess)

Three frontage roads and three connections are involved in the project, changing minimally the access to the beach, and the commercial and residential areas of Warrenton and Astoria. The Dolphin Street connection will be used heavily by AMAX for input-output operations.

BASIC CONSIDERATIONS (Continued)

3. ARE SPECIAL CONSTRUCTION METHODS REQUIRED?

No ☐ Yes ☒ (Explain and Assess)

Approximately 0.8-mile of the highway will be built over swampy conditions requiring subexcavation of unsuitable material and then backfilling with sand. A potential sand source is near the south end of the project. Some waste material will be used to create a 16-foot landscaped berm to screen the aluminum plant from the highway for purpose of sound reduction and aesthetic improvement.

4. WHAT LOCATION OR DESIGN ALTERNATIVES HAVE BEEN IDENTIFIED?

1. "No Build"
2. "Original Location" (and present plan) with earth berm.
3. "L^3" was an alignment swinging line further westerly to avoid property owned by Northwest Aluminum Company. This alignment would have required purchase of more right-of-way and additional construction costs. When AMAX purchased NW Aluminum Co., the "L^3" alignment was abandoned due to AMAX's change of decision on highway alignment.

5. IDENTIFY ANY SIGNIFICANT POTENTIAL FOR FUTURE CONTROVERSIAL ISSUES.

(Social, Economic, Natural Resource)

Potential issues are the sand source, disposition of excavated waste material, destruction of natural habitat and drainage pattern changes. AMAX's plant construction has been an on-again and off-again situation. New AMAX needs, not now identified, may affect highway planning and construction.

J. TYPE OF DOCUMENT REQUIRED

Draft E. I. S.	☒	Negative Declaration	☐	Statewide Negative Declaration	☐
Final E. I. S.	☐	Section 4(f)	☐	Environmental Assessment	☐

K. PRELIMINARY FHWA CONCURRENCE

Approval of Type of Document 8-28-74 (Date) — FHWA AREA ENGINEER

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
2	General Sections
2a	Typical Sections (Summary)
3-7	Plan & Profile
7A	Profiles

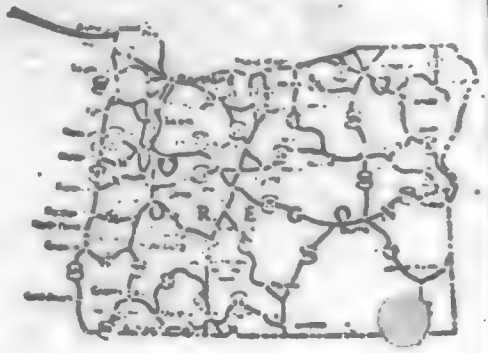
SHEET NO.	ASTORIA-CAMP RILEA SECTION, OREGON COAST HIGHWAY, CLATSOP COUNTY	
NO. OF SHEETS THIS PROJ.	MAP	PROJECT NUMBER
8	OREGON	

STATE OF OREGON

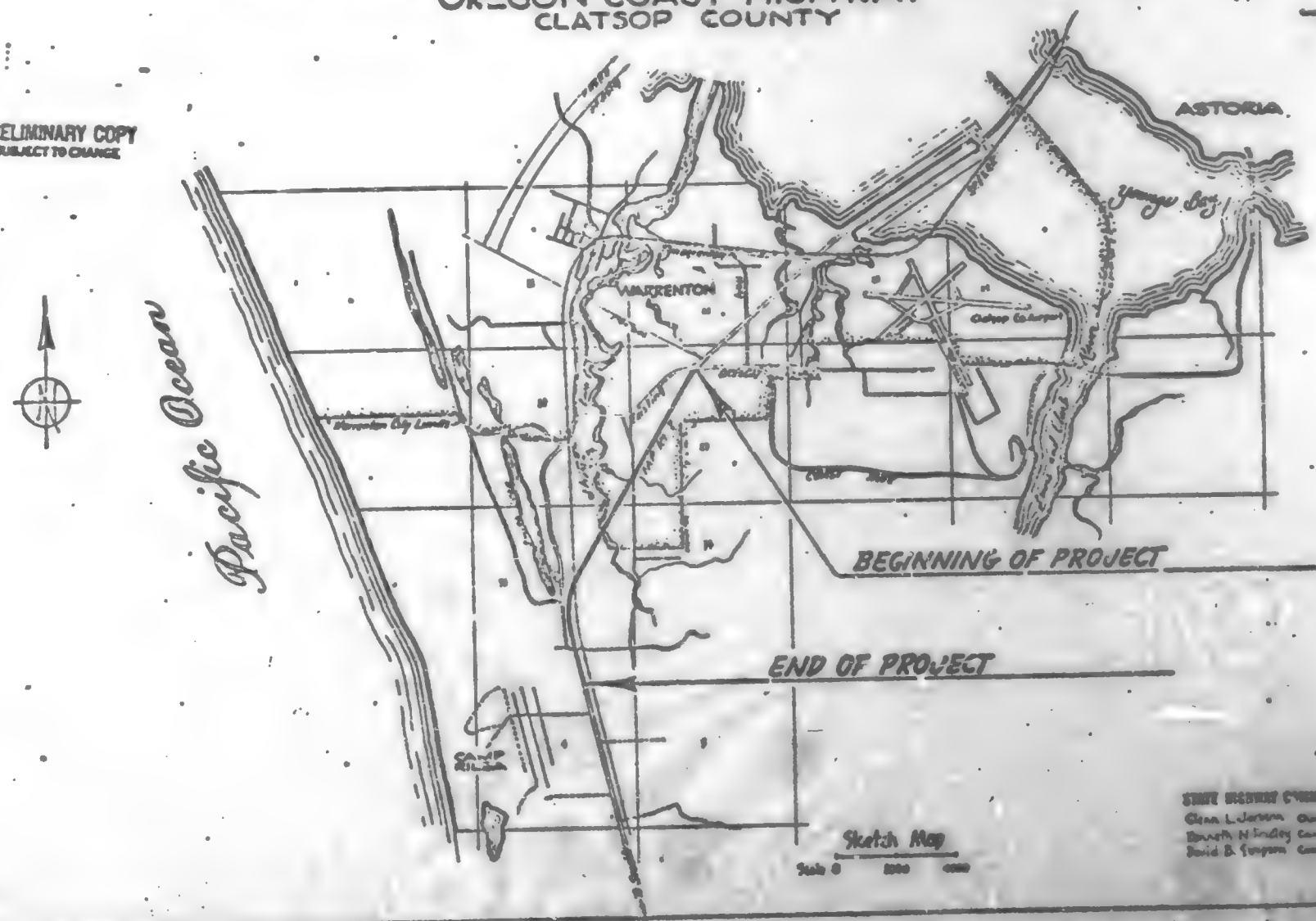
STATE HIGHWAY DEPARTMENT

PLANS FOR PROPOSED PROJECT

SOUTH UNIT
ASTORIA-CAMP RILEA SECTION
OREGON COAST HIGHWAY
CLATSOP COUNTY



PRELIMINARY COPY
SUBJECT TO CHANGE



STATE HIGHWAY COMMISSION
Gove L. Jenson, Chairman
Kenneth N. Hadley, Commissioner
David B. Simpson, Commissioner

DEPARTMENT OF TRANSPORTATION
BUREAU OF PUBLIC ROADS
APPROVED
BY
DIVISION ENGINEER
DATE

8949

OREGON STATE HIGHWAY DIVISION

REGION 2

2960 E. STATE STREET • SALEM, OREGON • 97310 • Phone 378-2626

TOM McCALL
GOVERNOR

GEORGE M. BALDWIN
Administrator of Highways

August 7, 1974

De Leuw, Cather & Company
Engineers and Planners
120 Howard Street
San Francisco, CA 94105

NOTED
E. S. HUNTER

ATTENTION: Mr. Gerald Fox
TRANSPORTATION PLANNER

Gentlemen:

We have studied your request for an interchange with Dolphin Road and the contemplated realignment of the Oregon Coast Highway in the vicinity of the AMAX plant site at Warrenton, Oregon.

Our present plans are predicated on a controlled access four lane facility with left turn refuges in both directions for Dolphin Road. It is anticipated that with existing traffic volumes there would be no major turning movement delay. With the anticipated afternoon peak hour of 300 vehicles that you have indicated, a 12- to 15-second delay could occur for autos attempting to enter the Oregon Coast Highway. By 1994 the average delay time anticipated would be from 12 seconds to slightly over 60 seconds, with average peak hour delay of approximately 45 seconds.

These delays would not normally be considered extreme for some time, and it would appear that an interchange is unwarranted for the present proposal. Our studies indicate that an interchange would cost approximately $1 million, exclusive of right-of-way. We would be reluctant to recommend additional expenditures of this magnitude in view of our present evaluation of the traffic congestion.

It is our belief that the channelized at-grade intersection presently proposed for Dolphin Road is adequate. Signals will probably not be proposed. Experience has indicated that signalization of intersections in areas like this increase the accident probability.

In respect to your proposal, an interchange may be necessary to move

RECEIVED
AUG 8 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

future traffic at the intersection and should be reconsidered at a later time. Based on our present projections, this would be a few years beyond 1993.

Yours very truly,

ORIGINAL SIGNED BY GERALD WIMER

Gerald W. Wimer
REGION CONSTRUCTION ENGINEER

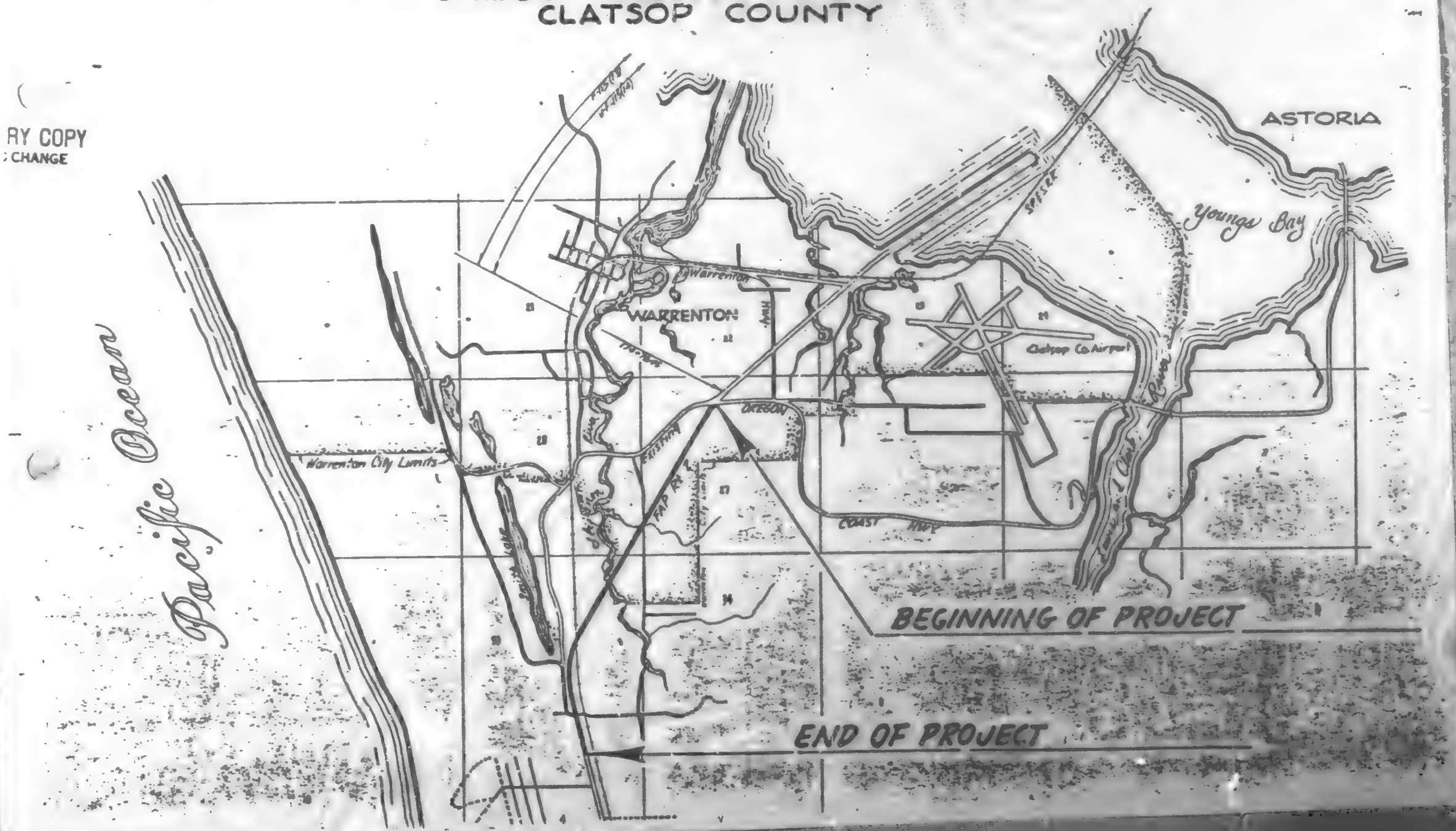
VAB/GWW/elk

cc: E. S. Hunter
Victor D. Wolfe
J. H. Verstoeg
Eldon Everton
Rod Henry
Jim Chaney

STATE HIGHWAY DEPARTMENT

PLANS FOR PROPOSED PROJECT

SOUTH UNIT
ASTORIA-CAMP RILEA SECTION
OREGON COAST HIGHWAY
CLATSOP COUNTY



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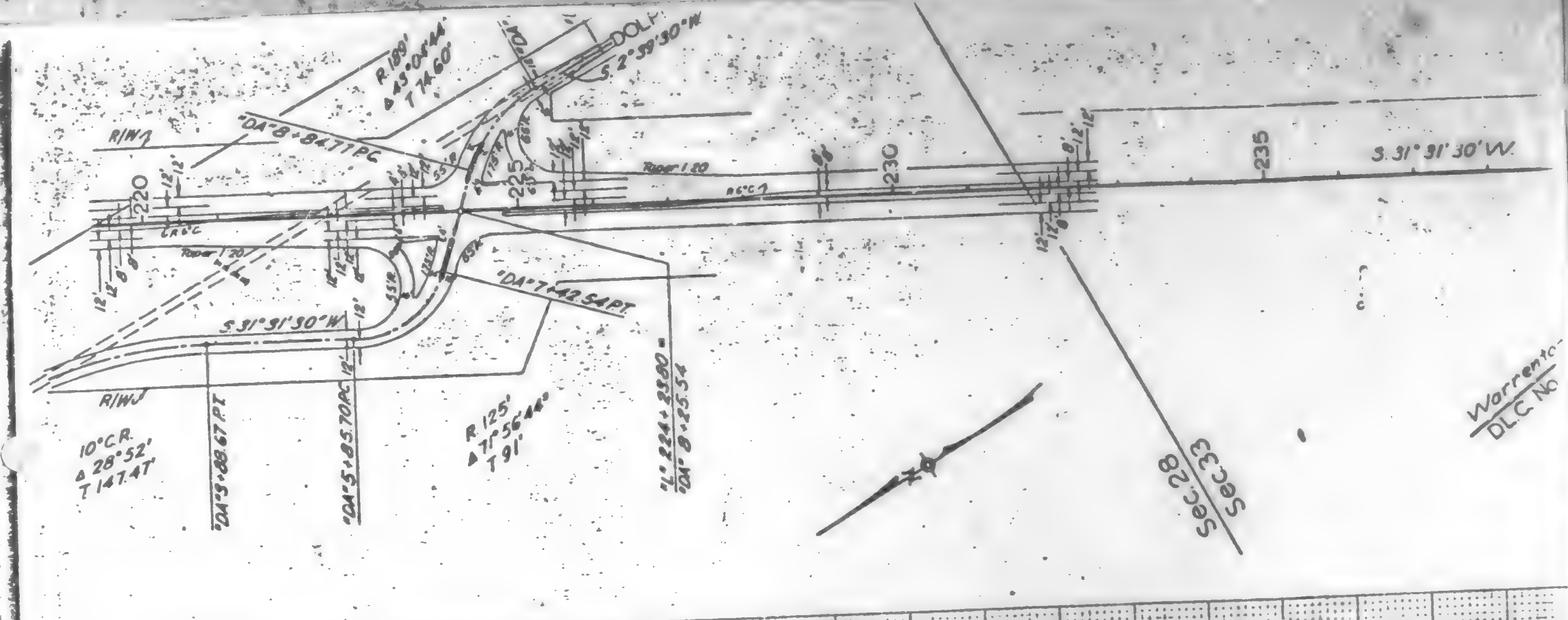

R/W
"DA"8°-82.77 PC
R 180'
Δ 43°04'44"
T 74.60'
DOLP
S 2°39'30" W
220
225
230
235
S 31° 91' 30" W.
Roor 1.80
"DA"7°-42.54 PT
S 31°91'30" W
R/W
10° C.R.
Δ 28°52'
T 147.4'
"DA"9+89.67 PT
"DA"5+85.70 PC
R 125'
Δ 7°56'44"
T 91'
"L" 224+2500
"DA" 8°-25.54
Warrento
DLC No
Sec 28
Sec 33
Ground Line of ℄
Profile Grade 32' Lt. Or Rt.
+0 2900
Subgrade
1200 V.C
28'
20
10
0

8949

FORM E-20-X 12-67

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

April 17, 1974

To:

SUBJECT: South Unit Astoria-Camp Rilea Section
Oregon Coast Highway

Mr. J. H. Verstoeg
Road Design Engineer

NOTED
E. S. HUNTER

In line with our discussions of Friday, April 12, please delete the proposed Class I bicycle path from the plans on the above section. We will handle the bicycle traffic by proper delineation on the proposed 10-foot shoulders.

Victor D. Wolfe
Location Engineer

VDW:mc

cc E. S. Hunter
C. O. Fredrickson

RECEIVED
APR 19 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

8949

March 11, 1974

TO S. L. Green, Division Engineer
Federal Highway Administration

FROM R. M. Rutler
Project Management Engineer

SUBJECT Program Data Submission
Project No. RF-115(23) S. Unit, Astoria-Camp Rilea Section

We are submitting program data for one Rural Primary right-of-way project, Item No. 11, Project No. RF-115(23), which we desire to have included in the Federal-Aid Rural Primary Highway Program.

We further request concurrent with your approval of the program, authorization to proceed with all phases of right-of-way acquisition including incidentals and relocation assistance for the project. The right-of-way required is as outlined in red on the enclosed copy of right-of-way map 88-26-20.

Within a reasonable period of time prior to displacement a comparable replacement dwelling will be available for each displaced person on this project. This assurance is based on the enclosed copy of a relocation plan supplement dated February 12 and 28, 1974, which indicates that adequate replacement housing is available. Relocation assistance will be provided from Mr. Rod Henry's office at 2900 State Street, Salem.

Our State relocation program is realistic and is adequate to provide orderly, timely and efficient relocation of displaced persons as provided in IM 80-1-71.

CL:js

Budget Bureau No. 41-R206

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO R. O.

FORM PR-1 (REV. 4-01)

March 11, 1974

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

CARD 2	REPORT NUMBER: 1 (18)(20)	PROJECT LOCATION (45 typewriter spaces): US 101 2.5 mi SW of Astoria SW 2.77 mi 21 65	ADT	PRESENT: 4,900	FUTURE: 9,300 (66)(70)	YEAR: 94 (71)(72)	REGION: 10	STATE NAME: Oregon			
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces): Right of Way Acquisition 35 62	NATL. FOREST (63)(68)	PR HIGHWAY NO.	DEPT. ASST.	DA CLASSIF.	DA AREA (73)	EMERG. YR. (72)(75)	PL. AUTH YR (74)(76)	PROJECT NUMBER: PREFIX LETTER(S): RF- 14 20	NUMBER: 115 7	
CARD 4	CLASS OF FEDERAL FUNDS: Rural Primary						COUNTY NAME: Clatsop				
	NAME OF URBAN AREA 17-31						ROUTE NO. P	FEDERAL-AID: 2 (28)	STATE: 9 (96)(97)	U.S.: 101	

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS
	1	(14-15)	(16	41	42	43 46	53	(54) (56)(58) (66)		(67) (76)		
5						PE		US 101 2.5 mi. S.W. of Astoria S.W. 2.77 mi. (S. Unit, Astoria-Camp Rilea Section)				
5						ROW			2.77	250,000	195,300	54,700
5						CONST (CODE)						
								PROJECT TOTALS	2.77	250,000	195,300	54,700

CARD 1	CODE 1	PREPARED BY		REMARKS
1	14	PROGRAM APPROVAL DATES	(16) (23)(24) (28)	

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

FORM PR-1 (REV. 4-61)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

March 11, 1974 (PPM 21-1)

PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
101 2.5 mi SW of Astoria SW 2.77 mi	ADT	4,900	9,300	94	10	Oregon	41	073	11

WORK (35 typewriter)	NAT'L. FOREST	FH ROUTE NO.	SUPV. DIST.	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER: PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only: POST MI.	DESIG.
Acquisition								RF-	115	(23)		

Rural Primary

COUNTY NAME: Clatsop — CODE: 007

ROUTE NO. P | FEDERAL-AID: 2 | STATE: 9 | U.S.: 101

PROGRAM STAGE: [ ] 1 OR [X] 2

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
		US 101 2.5 mi. S.W. of Astoria S.W. 2.77 mi.						ROW Acquisition all phases incl. incidental, relocation assistance and building demolition
ROW		(S. Unit, Astoria-Camp Rilea Section)	2.77	250,000	195,300	54,700		(Future 4 - 12' lanes H.T. pave. 16' median & 10' shldrs.)
CONST (GRADE)								ROW - 170' min. Access Control-partial Parking restrictions-complete
		PROJECT TOTALS	2.77	250,000	195,300	54,700		

APPROVAL DATES

REMARKS

-over-

S. UNIT, ASTORIA-CAMP RILEA SECTION
PROJECT NO. RF-115(23)

Existing Facility: Roadway 2 - 12' lanes A.C. pavement with 3' shoulders.

Adjacent Sections:

Northeast End: 2 - 12' lanes A.C. surface with 10' paved shoulders constructed under Projects F-115(13) and F-115(19).
Southwest End: 2 - 12' lanes A.C. surface with 3' shoulders.

Project Data: Right-of-way acquisition, all phases, including incidental costs, relocation assistance and payments and building demolition as required to provide for future construction of a highway facility on new alignment to provide ultimate 4 - 12' lanes high type pavement with 16' median and 10' shoulders.

System Action, Water Development, Historical and Recreation Areas: None involved.

Airports: Clatsop County Airport is located 1-1/2 miles N.E. of the beginning of the project.

Railroad Data:

Railroad:	Burlington Northern
No. of Tracks:	One (main)
No. of Trains:	2 (freight)
No. of Hi-speed Trains:	None
Present Protection:	None (no crossing)
Proposed Protection:	Flashing lights with drop arm gates
R.R. Benefits:	None

Public Hearing: Held on October 29, 1959.

Design Approval: FHWA memo of December 12, 1969 concurred that the subject project had developed under preceding regulations beyong the location/design approval stage prior to the issuance of PPM 20-8 and that no further action was required.

Environmental Statemen

Data for PR-37: Relo
4 families and 1 busi

a. Moving costs
4 famili
1 busine
b. Replacement
c. Incidental C

Estimated cost of bui

Note: This project

UNIT, ASTORIA-CAMP RILEA SECTION
PROJECT NO. RF-115(23)

nt with 3'

0' paved
3) and

3' shoulders.

including
end building
tion of a
/4 - 12'
lders.

eation Areas:

les N.E. of

drop arm gates

ncurred that
egulations
the issuance
.

Environmental Statement: being submitted as a separate action.

Data for PR-37: Relocation assistance consists of displacement of 4 families and 1 business estimated as follows:

a.	Moving costs	
	4 families	$ 2,000
	1 business	5,000
b.	Replacement Housing	11,000
c.	Incidental Costs	2,000
		$20,000

Estimated cost of building demolition is $1,000

Note: This project is in Congressional District No. 1.

8949

OREGON STATE HIGHWAY DIVISION
LOCATION SECTION
SOILS AND GEOLOGY UNIT
PROJECT BASE DESIGN

REVISED

RECEIVED
JAN 4 1974
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Section: South Unit, Astoria - Camp Rilea
Highway: Oregon Coast (FAR 2)
County: Clatsop
Prefix: 4-1454

Res. Engr.
Approx. Length 1.93± miles
~~MK~~ M.P. 9.79± to ~~MK~~ M.P. 11.72±
Date December 14, 1973

Mean Truck A.D.T. 606
Traffic Coefficient 9.3
18 kip s. a. per day 176.5

Annual Precipitation 71"± (Seaside)
Frost Penetration - - - -
CBE Total Requirement 29.5"

(1)

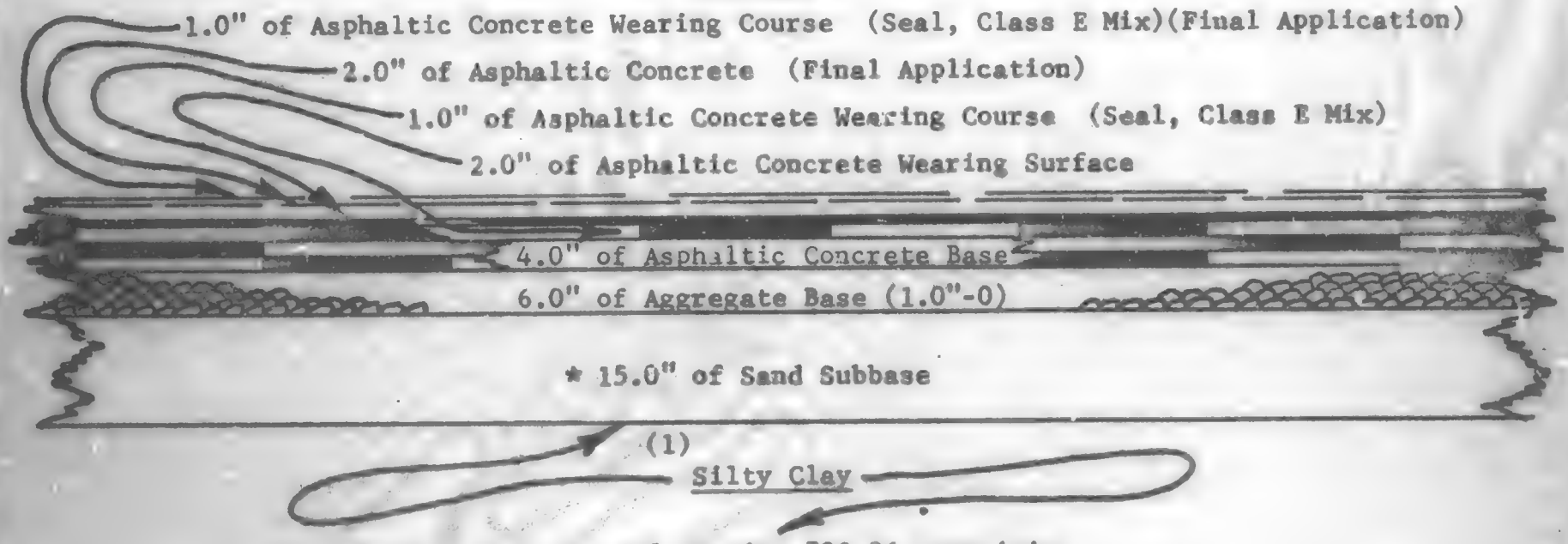
Typical Soil	
59	LL
19	PI
100	%P 10
72	%P 200
0	% Gravel
10	% C Sand
18	% F Sand
39	% Silt
33	% Clay
10	R Value
A-7-5	AASHO Classif.

Materials Source:

To be determined by the Engineer.

Credit	Actual Thick.	Component
---	1.0	A.C.W.C. (F.A.)
4.0	2.0	A.C. (F.A.)
---	1.0	A.C.W.C.
4.0	2.0	A.C.W.S.
8.0	4.0	A.C.B.
6.0	6.0	A.B.
7.5	* 15.0	S.S.B. NOTED E. S. HUNTER
29.5	31.0	

STRUCTURAL SECTION
NEW WORK


1.0" of Asphaltic Concrete Wearing Course (Seal, Class E Mix)(Final Application)
2.0" of Asphaltic Concrete (Final Application)
1.0" of Asphaltic Concrete Wearing Course (Seal, Class E Mix)
2.0" of Asphaltic Concrete Wearing Surface
4.0" of Asphaltic Concrete Base
6.0" of Aggregate Base (1.0"-0)
* 15.0" of Sand Subbase
(1)
Silty Clay

* Delete that part of Section 703.06 pertaining to the fine material passing the ¼" sieve.

OREGON STATE HIGHWAY DIVISION
LOCATION SECTION
SOILS AND GEOLOGY UNIT
PROJECT BASE DESIGN

Section: South Unit, Astoria - Camp Rilea
Highway: Oregon Coast (FAR 2)
County: Clatsop
Prefix: 4-1454

Res. Engr.
Approx. Length 1.93± miles
~~Sec~~ M.P. 9.79± to ~~Sec~~ M.P. 11.72±
Date December 14, 1973

Mean Truck A.D.T. 606
Traffic Coefficient 9.3
18 kip e. a. per day 176.5

Annual Precipitation 71"± (Seaside)
Frost Penetration - - - -
CBE Total Requirement 29.5"

(2)

Typical Soil

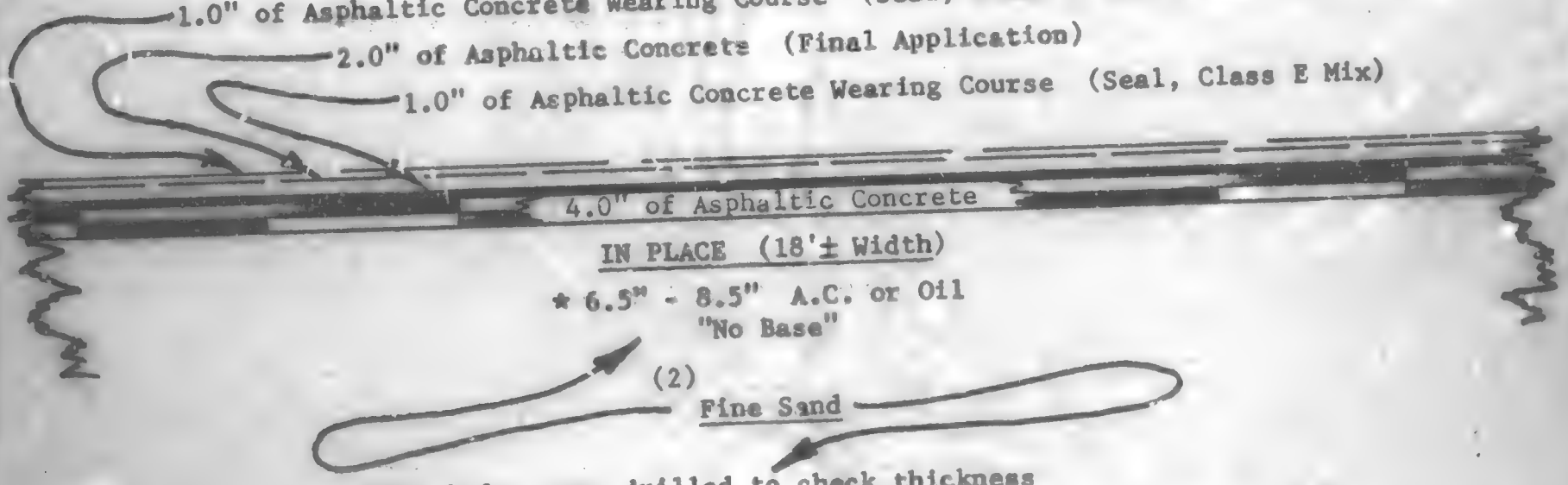
27	LL
0	PI
99	%P 10
17	%P 200
1	% Gravel
1	% C Sand
81	% F Sand
13	% Silt
4	% Clay
41	R Value
A-2-4	AASHO Classif.

Materials Source:

To be determined by the Engineer.

Credit	*Actual Thick.*	*Component*
---	1.0	A.C.W.C. (F.A.)
4.0	2.0	A.C. (F.A.)
---	1.0	A.C.W.C. (F.A.)
8.0	4.0	A.C.
	OVER EXISTING ROADWAY	

STRUCTURAL SECTION
EXISTING ROADWAY (Where Utilized


1.0" of Asphaltic Concrete Wearing Course (Seal, Class E Mix)(Final Application)
2.0" of Asphaltic Concrete (Final Application)
1.0" of Asphaltic Concrete Wearing Course (Seal, Class E Mix)
4.0" of Asphaltic Concrete

IN PLACE (18'± Width)

* 6.5" - 8.5" A.C. or Oil
"No Base"

(2)
Fine Sand

* Four holes were drilled to check thickness of existing A.C.

See Remarks on Page 3.

Submitted by _____ Base Design Engineer

Recommended by _____ Engineer of Materials and Research

Recommended by _____ Location Engineer

Approved by _____ Asst. State Highway Engineer

F.H.W.A.
Asst. State Highway Engineer
Location Engineer
Construction Engineer
Engineer of Material and Research
Regional Engineer
Resident Engineer
Design Engineer
Specifications Engineer
Final Design Engineer
Regional Geologist

SECTION: South Unit, Astoria - Camp Rilea

HIGHWAY: Oregon Coast (FAR 2)

COUNTY: Clatsop

"OTHER ROADS"

Traffic Coefficient	*A.C. Wearing Surface*	A.C. Base	1.0"-0 *Aggregate Base*	Minimum Sand Subbase	*"CBE" Total Requirement*	*Actual Thickness*
8.0 - 9.0	2.0"	4.0"	6.0"	18.0"	27.0"	30.0"
7.0 - 8.0	2.0"	4.0"	6.0"	12.0"	24.0"	24.0"
6.0 - 7.0	3.0"		6.0"	18.0"	21.0"	27.0"
4.8 - 6.0	2.0"		6.0"	15.0"	17.5"	23.0"
Cars Only	2.0"		6.0"	6.0"	13.0"	14.0"

Remarks:

Base design has been revised to update traffic and to include the 1.0" open graded plant mix seal.

Stage construction has been included as part of the twenty-year design period. The initial stage is based on approximately a five-year design period with a Traffic Coefficient of 8.1 and a C.B.E. Requirement of 26.0". Toward the end of this period a condition survey (visual inspection and deflection measurements, if required) will be made to determine the proper time for placing the "Final Application."

"EXISTING ROADWAY"

The present roadway generally will be incorporated into the new work as part of the median or a left turn refuge; and will not be exposed to use by the heavy thru traffic. The recommendation to salvage an 18' center width with a minimum 4.0" A.C. overlay is based on the above traffic assumption.

Should substitutions be made use the "CBE" Total Requirement column to obtain the "Total Thickness Required" and the table below for values:

1.0" Asphalt Concrete	=	2.0" Aggregate Base
1.0" Plant Mix Bituminous Base	=	1.8" Aggregate Base
1.0" Cement Treated Base	=	1.8" Aggregate Base
1.0" Oil Mat	=	1.1" Aggregate Base
1.0" Aggregate Subbase	=	0.8" Aggregate Base
1.0" Lime Treated Subgrade	=	1.0" Aggregate Base
1.0" Sand Subbase	=	0.5" Aggregate Base

Above factors apply to materials that comply with Standard Specifications and Special Provisions.

TRAFFIC ANALYSIS

SECTION: South Unit, Astoria - Camp Rilea

HIGHWAY: Oregon Coast (FAR 2)

COUNTY: Clatsop

4900 Present ADT (1974)

9.5 Percent Trucks

AXLES	TWO WAY TRUCK ADT	EXPANSION FACTOR	TOTAL TADT	MEAN TADT	ONE WAY EWL	AVERAGE ANNUAL EWL
2	225	1.6	360	293	450	131,850
3	113	1.6	184	150	1000	150,000
4	5	1.6	8	7	1250	8,750
5	120	1.6	192	156	3180	496,080
6	0	---	---	---	2570	- - - -
				606	TOTAL	

TOTAL AVERAGE ANNUAL DESIGN EWL 786,680

TWENTY YEAR EWL 15,733,600

TRAFFIC COEFFICIENT 9.3

SECTION: South Unit, Astoria - Camp Rilea

HIGHWAY: Oregon Coast (FAR 2)

COUNTY: Clatsop

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair ____ Poor ____
   Remarks: ____
5. Cost Comparisons: None made. See Remarks.

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A.C. or Oil.
7. Stage Construction: Part of design.
8. Depressed, Surface, or Elevated Design: Surface.
9. Conservation of Aggregates: Not a consideration.
10. Stimulation of Competition: Not a consideration.
11. Construction Consideration: See Remarks.
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: Not applicable.
13. Traffic Safety: Not a problem.
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type of construction.

CONCLUSION AND REMARKS:

This is essentially a widening project utilizing an existing roadway, and A.C. is more desirable for this type of construction.

8949

December 10, 1973

Mr. Gerald Fox
Project Manager
DeLeuw, Cather & Company
1256 Market Street
San Francisco, CA 94102

Dear Mr. Fox:

As requested in your letter of December 4, we are mailing to you, under separate cover, the following data pertaining to the South Unit of the Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County.

A print of the cover sheet for the plans of the proposed project showing in general the location of the project as it relates to other facilities in the area.

Two sheets of typical sections and a right-of-way map -- scale 1" = 100' which shows in better detail the alignment and the right-of-way required.

In general, this facility is to be four-lane with controlled access. In the vicinity of the proposed aluminum smelter plant, it is planned that there will be no access to the new facility from the existing Oregon Coast Highway at the northerly end of the project to the intersection of Rodney Acres County Road (Dolphin Avenue). This road will be connected to the new facility somewhat as shown on the right-of-way map.

All of the data being submitted is preliminary in nature, as the plans have not been finalized. We are working on them at this time. No definite date has been established for the contracting of this project. Our present estimate is that it will be let for contract sometime in the latter part of 1975 or the earlier part of 1976.

We hope this is the information you desire. If we can be of further assistance, please let us know.

Very truly yours,

L. H. Young
Office Engineer

RDA:dg

DE LEUW, CATHER & COMPANY
ENGINEERS AND PLANNERS
1256 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94102
(415) 861-1302

December 4, 1973

Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Sir:

We are currently reviewing plans for an Aluminum Smelter in the Astoria/Warrenton vicinity. We understand that your department plans major realignments and improvements to Highway 101 between Astoria and Clatsop, some 6 miles to the southwest.

We should be grateful if you could let us have details of this work, particularly the alignment and design standard, and when it is scheduled.

Yours truly,

DE LEUW, CATHER & COMPANY

Gerald Fox per sg

Gerald Fox
Project Manager

RECEIVED
DEC 6 1973
OFFICE ENGINEERING SECTION

RECEIVED
DEC 6 1973
HIGHWAY
ADMINISTRATIVE SERVICES

8919

FORM E-30-X 12-67

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 11, 1973

SUBJECT: Bikeway — Copy
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

To:

Mr. J.H. Verzberg
Road Design Engineer
Building

In response to your inquiry, it is recommended that an 8-foot standard bikeway width be used on this rural facility. In conformance with our new manual currently being developed, bikeway curvature with a radius of 100 feet or less will require widening.

In reviewing this facility, it appears that the proper location for the bikeway would be on the west side to provide maximum access to the coastal area and Fort Stevens State Park.

Victor D. Wolfe
Location Engineer

NOTED
E. S. HUNTER

JDM:jp
cc: E.S. Hunter
D.G. Talbot

RECEIVED
OCT 12 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

8949

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem

DATE February 1, 1973

TO Memo to the File

FROM R. D. Asburry
Assistant Office Engineer

SUBJECT S. Unit, Astoria-Camp Rilea Section
Cannon Beach Junction Section
Oregon Coast Highway

The following information on the subject sections is being relayed by telephone this date to Ralph Sipprell.

The S. Unit of the Astoria-Camp Rilea Section is on our tentative schedule to be contracted in the last quarter of calendar year 1974 (second quarter fiscal year 1975). The Cannon Beach Junction Section, as per the same schedule, is listed for contracting in the first quarter of calendar year 1976 (third quarter fiscal year 1976).

Both of these sections are listed on the Environmental Work Sheet under the priority class No. 2. This sheet indicates no work has been done on them as of this date.

RDA:dg

cc L. H. Young
Ralph Sipprell

RECEIVED
JUN 20 1972

OREGON STATE HIGHWAY DIVISION
INTER-DEPARTMENT CORRESPONDENCE

Salem

DATE June 20, 1972

TO E. S. Hunter
8949 Assistant State Highway Engineer

FROM R. D. Asburry
Assistant Programing Engineer

SUBJECT Environmental Statement
Priority List

Attached is a copy of a list of projects submitted by the Enviornmental Unit showing the priority and status of the environmental statements as of June 6.

On the right-hand margin of this list is shown the tentative letting date as listed in established schedules in the Programing Section.

You will note under priority No. 3, very few letting dates are shown as most of these are so far in the future that they are not on a firm schedule.

The following is a list of projects with tentative letting dates through the calendar year 1973-74, which will need environmental statements, but are not shown on the attached list.

Project	Highway	Tentative Letting Date
Cape Arago-Woodland Dr.	Empire-Coos Bay	Jan. 73
E. Timber Jct.-M.P. 391	Sunset	4-1/4 73
Rock Cr.-Sunset Springs	Sunset	4-1/4 73
M.P. 33.5-M.P. 35.0 (Wolf Cr.)	Sunset	4-1/4 73
Airport Rd.-Belt Line Rd.	Pacific W.	4-1/4 73
Linn Co. Line-McKenzie R.	I-5	1-1/4 74
Reedway-Clackamas Co. Line	Pacific E.	1-1/4 74
Hayesville Intchge.-Battle Cr.	I-5	2-1/4 74
Malin Jct.-Henley	K. Falls-Malin	2-1/4 74
Willamette R. (Salem) R/W	Willamina-Salem	3-1/4 74
Astoria-Camp Rilea, S. Unit	Oregon Coast	4-1/4 74

Attach.

RDA:dg

RECEIVED
AUG 27 1971

FOR FILING

8949

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
August 23, 1971

To: Rod Henry
Bill Fretwell

SUBJECT: South Unit
Astoria-Camp Rilea

Assistant State Highway Engineer Fred Klaboe's August 11 instructions to this office relative to the South Unit of the Astoria-Camp Rilea Section were to "Finish field work and purchase right of way."

The survey is in the Design Section and they will complete the design. The only remaining field work is to update the soils report which Fretwell is to do immediately.

Right of way northerly of the railroad track cannot be defined until the design is further along. All of those parcels southerly of the railroad track that have previously had a hold on them are being released by the right of way description unit and according to George Wills' instructions will be sent through channels to Rod Henry's office to proceed with purchase of those southerly of the railroad tracks.

J. B. Boyd
REGIONAL ENGINEER

GWW/JBB/jc

cc: Fred Klaboe
Frank Hall
Loren Weber

RECEIVED
AUG 24 1971
OFFICE OF
STATE HIGHWAY ENGINEER

C.

8949

FORM E-20 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

SALEM, OREGON

August 19, 1971

To: Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

SUBJECT: Throughway Agreements
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Hwy. #9 (US 101)
City of Warrenton
Clatsop County

On August 18 an agreement with AMAX Pacific Corporation (Assign. #4327) was forwarded to you for review and approval with mention of an additional agreement forthcoming with the City of Warrenton and Clatsop County pertaining to subject matter.

In December of 1966, agreements were sent to you and returned with "hold for later submission" due to undetermined location, design, etc.

These agreements, attached, have been updated to cover the proposed project as we understand it and provide for City of Warrenton to assume the existing alignment between the new connection of Highway 101 and S.E. 12th Place, and the Ft. Stevens Hwy. (Main Street) excepting the Skipanon River Bridge. It is likely, based on prior discussion, they will not accept this or any other proposal and we may have to work through the Clatsop County Board of Commissioners.

I might mention we would propose to extend the Ft. Stevens Hwy. south to the new US 101 near Camp Rilea for continuity of travel on highway routes. ?

Please review these documents and refer to appropriate personnel for consideration, comments, etc., and return to this office for further processing.

H. S. Cox
County and City Engineer

By D. N. Harwell
D. N. Harwell
Coordinating Engineer

APPROVED
S. Klaboe
Design Engr.

RECEIVED
AUG 19 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
COUNTY & CITY SECTION
AUG 31 1971
☑ ENGR. ☑ COOR. ☐ GE ☐ AE ☐ UE
☐ UPE ☐ CE ☐ RE ☐ RPE

DNH:ljt
Att.

RECEIVED
COUNTY & CITY SECTION
AUG 25 1971
☐ ENGR. ☑ COOR. ☐ GE ☐ AE ☐ UE
☐ UPE ☐ CE ☐ RE ☐ RPE

8P*52475-724

Please discuss
8-25-71 OK 8-27-71
DNH

RECEIVED
OCT 8 - 1970
FORM B-90 (REV. 10-68)

Court 8949
R/W
101 - Clatsop

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

October 5, 1970

SUBJECT: South Unit Astoria - Camp Rilea Section US101

To: Mr. F. B. Klaboe
Assistant State Highway Engineer

BUILDING

This will refer to your August 28, 1970, letter addressed to Mr. D. J. Barbee with regard to right-of-way costs on the subject section of US101.

One property has been acquired [File 43559 - Hazel Hageman et al] for a consideration of $4,450.00. Following is a tabulation of the costs incurred:

Consideration for Hageman property	$4,450.00
Credit for present value of property	- 2,250.00
	$2,200.00
Relocation allowance	275.00
Decent, safe, and sanitary housing additive	3,166.00
State's prorated share of 1969-70 taxes	56.36
Title insurance premium	43.00
Total	$5,740.36

The value of the estimated right-of-way that will need to be retained from the Hageman property has been included in the above figures. In addition to the above, there was a $1.50 recording fee on the deed from Hageman to the State.

There may be other expenses such as title reports in the future. These expenses should not be excessive, as most of the files will be revised for the old corridor on the basis of new design. However, if the nineteen files are cancelled, there will be a $25 charge against each file that should be assumed by the aluminum company.

Plus as to be worked. →

NOTED
F. B. KLABOE

D. H. Moehring
Right of Way Engineer

RECEIVED
OCT 5 1970
OFFICE OF
STATE HIGHWAY ENGINEER

DHM:JP

10-8-70 copy to Skoog w/note:
As far as I know, this will be final billing. Wills is checking the design section and if he has any charges will immediately contact you. Please bill N.W. Aluminum.
FBK

FORM E-20 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

September 30, 1970

SUBJECT: South Unit Astoria – Camp Rilea Section US101

To: Mr. F. B. Klaboe
Assistant State Highway Engineer

BUILDING

This will refer to your August 28, 1970, letter addressed to Mr. D. J. Barbee with regard to right-of-way costs on the subject section of US101.

One property has been acquired [file 43559 – Hazel Hageman et al] for a consideration of $4,450.00. Following is a tabulation of the costs incurred:

Consideration for Hageman property	$4,450.00
Relocation allowance	275.00
Decent, safe, and sanitary housing additive	3,166.00
State's prorated share of 1969-70 taxes	56.36
Title insurance premium	43.00
Total	$7,990.36

In addition to the above, there was a $1.50 recording fee on the deed from Hageman to the State, and eventually there will be another $1.50 recording fee, as we find we have only a deed to the right-of-way and not to the right-of-way and excess as optioned. A correction deed is presently being prepared.

There may be other expenses such as title reports in the future. These expenses should not be excessive if most of the files will be revised for the old corridor on the basis of new design. However, if the nineteen files are cancelled, there will be a $25 charge against each file that should be assumed by the aluminum company.

John R. Oakes

John R. Oakes
Assistant R/W Engineer

NOTED
F. B. KLABOE

RECEIVED
OCT 1 1970
OFFICE OF
STATE HIGHWAY ENGINEER

JRO:JP
copies to Skoog
Oakes
10-8-70

SP 58479.734

5949

FORM F-30-X (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

September 23, 1970

SUBJECT: City of Warrenton
Water Line

To: Mr. R. D. Asbury
Regional Engineer
205 East Salem Highway Building
2960 East State Street
Salem, Oregon 97310

Attention: G. W. Wimer

We are replying to your letter of September 18 in which you asked our recommendation regarding the "Warrenton Water District letter" which has been distributed to their affected users.

Mr. Weber should advise Mr. Bonsanti and others who may inquire, that we do not know what percipitated the action by Warrenton in selecting the new route for their water main. Also, the Oregon State Highway Division does not have a responsibility in maintaining services of utilities, which may have been discontinued, and that under the circumstances cited, there does not appear to be any way in which we can intercede for a user who may have his services discontinued.

FRANK L. HALL
Design Engineer

By

GEORGE C. WILLS
Chief Locating Engineer

GCW:jc
cc: T. W. Litchfield
H. S. Cox
Elson Everton
Loren Weber
Fred Sugnet

RECEIVED
COUNTY & CITY SECTION
SEP 23 1970
ENGR. COOR. GE AE UE
UPE CE RE RPE

104-1494

FORM E-20-X (12-67

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 18, 1970

RECEIVED
COUNTY & CITY SECTION
SEP 22 1970
☐ ENGR. ☑ COOR. ☐ OE ☐ AE ☐ UE
☐ UPE ☐ CE ☐ RE ☐ RPE ☐

To: Frank Hall
DESIGN SUPERVISING ENGINEER

SUBJECT: City of Warrenton
Water Line
S Unit, Astoria - Camp Rilea

Attention: George Wills

By September 3, 1970 letter, the City of Warrenton Water Department has notified customers in the Clatsop Plains area that they have been unable in the past year to get a final commitment from the State Highway Commission. Because of this they have proceeded to contract with Frank Caluccio Construction Company of Seattle to install an 18-inch ductile iron, cement mortar lined pipe that will follow along the westerly side of the old highway from the junction of the Fort Stevens Secondary at M.P. 9.93 southerly to a crossing at Perkins Road M.P. 11.48. At that point they cross the railroad and go southerly more or less parallel with the railroad to their sedimentation, screening and chlorination facility at the headwaters of the Lewis and Clark River.

Four sets of the plans covering the portion of this installation on existing highway right of way were left with the Travel Section September 16 by Mr. Green according to a note that was forwarded to the attention of Floyd Lacey. One set of these is being forwarded to Eldon Everton together with a copy of Mr. Carl E. Green's September 10 letter of transmittal. Everton is instructed to prepare and process the usual permit application. The remaining copies of the plans will be attached to the application when it is received in this office.

The approximate 1000 feet of line immediately northerly of Perkins Road as shown on Carl E. Green's attached drawing 101-A-6 that is possibly in conflict with the South Unit of the Astoria-Camp Rilea Section is being checked in the Design room under the guidance of Fred Sugnet.

Mr. Dominich Bonsanti, Route 1, Box 560, Warrenton, Oregon 97146, has asked through Loren Weber according to Weber's attached September 9 letter that we intervene. Mr. Bonsanti is one of the City's water customers along the existing water line route that could be cut off when the new installation is put into operation. Mr. Bonsanti should be given a letter.

It would seem that an appropriate course of action would be for a smaller line to serve these people. If they did not want to go to this expense, then their only other alternative would be local wells. Whether

the small distribution lines should be installed by the City or a special district would be up to the City of Warrenton and local community efforts. Would you please arrange for a rough draft reply to Mr. Bossenti.

R. D. Asbury
REGIONAL ENGINEER

by

Gerald W. Wimer
REGIONAL CONSTRUCTION ENGINEER

GWW/cg

Attachs.

cc: T. W. Litchfield
H. S. Cox
Eldon Sverton
Loren Weber
Fred Sugnet

Jim - Hoage will contact you about a consolidated reply

Jerry

CARL E. GREEN & ASSOCIATES
Consulting Engineers and Planners
1730 S.W. SKYLINE BLVD., PORTLAND, OREGON 97221
292-9254

RECEIVED
SEP 1 51970
District 3

102

September 10, 1970

State Highway Department
205 East Salem Highway Bldg.
2960 E. State
Salem, Oregon 97310

Re: Warrenton Water Supply Project
Highway 101

Gentlemen:

The City of Warrenton recently obtained bids for the construction of a new water supply line from the Lewis-Clark river to the City, a portion of which from Perkins Road into the City will be installed within the State Highway Department right-of-way.

To avoid possible future conflicts which might arise in connection with the widening and relocation of Highway 101 between Perkins Road and Gearhart, we have located the pipe line along the Burlington Northern Railroad right-of-way and along County roads.

The contractor on the project is Frank Caluccio Construction Company of Seattle. The pipe in the areas in which you are concerned will be 18" ductile iron, cement mortar lined. The documents require the contractor to comply with the State Highway Department regulations and requirements.

He has also posted 100% public works performance and payment bond to the City, and will be required to maintain settled trenches, pavement, etc., for a period of one year after acceptance of the project.

We furnish herewith plan-profile drawings of the project. If you have any question regarding the work, please let me know.. Any application for permit should be sent to the City Manager of Warrenton.

Very truly yours,

CARL E. GREEN & ASSOCIATES

By Carl E. Green
Carl E. Green

CEG:mkt
Encl.
cc: City of Warrenton

FORM E-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Astoria, Oregon
Sept. 9, 1970

SUBJECT: Warrenton Water Lines
Camp Rilea - Gearhart Section

To: Mr. R. D. Asburry
Regional Engineer

Herewith a form letter from the City of Warrenton to various water users on the line. This one specifically to tap # 63, which is Mr. Dominich Bonsanti, Route 1, Box 560, Warrenton 97146.

Their place is located approximately 1000 feet Southerly from the road to the golf course, and is shown on part 1 of 2 on the Detail Map, covering the subject section.

Supposedly the City is planning to relocate their line along the RailRoad tracks, but according to what she told us, they are still hoping to get away from the railroad in the vicinity of her place. In any case, she is quite concerned that they will be unable to continue getting water from the City and is hopeful that we can intervene for them.

I told her that I had no answers concerning this situation, but would refer the letter to higher offices for consideration.

Loren A. Weber
Loren A. Weber
Resident Engineer

NOTED
J. G. CANFIELD

NOTED
GEO. N. HOPKINS

CITY OF WARRENTON

Warrenton Oregon

3 September 1970

Dear Warrenton Water Customer:

The City of Warrenton is now in the process of relocating its water distribution line. This has been brought about by the very deteriorated condition of its old wood stave pipe.

The city waited for over a year, attempting to get final commitment from the Oregon State Highway Commission for its relocation along the present or relocated 101. The state has never been able to give this confirmation and the city could not gamble on laying the pipe in a right-of-way which might have to be moved within the next few years.

This is going to very adversely affect some of the city's long time water customers. The new route will be along the right-of-way of the Burlington-Northern Railway Co. In many instances, Clatsop Plains residents have property rights abutting the railroad and, except for the inconvenience of rerouting their pipe line and the expense involved, can still continue on the water system. Others along Highway 101 may be able to get easements or find rights-of-way along public roads going from 101 to the railroad track. Each problem will be best known to the individual involved.

The contractors have just commenced work, so that there is perhaps six months before the change-over will take place. However, for all those persons who are involved, this is actually comparatively little time to acquire easements or do what things are necessary to insure service, if wanted. Regretfully, we have to admit that some of our good customers will have to go back to wells or well points.

There will be a second letter giving notice of the cut-off date; however, we felt that an advance warning would be advantageous to all concerned. We sincerely regret that we have no better news to offer, but the matter is out of the control of the city because of the indecision on the part of the State Highway Commission.

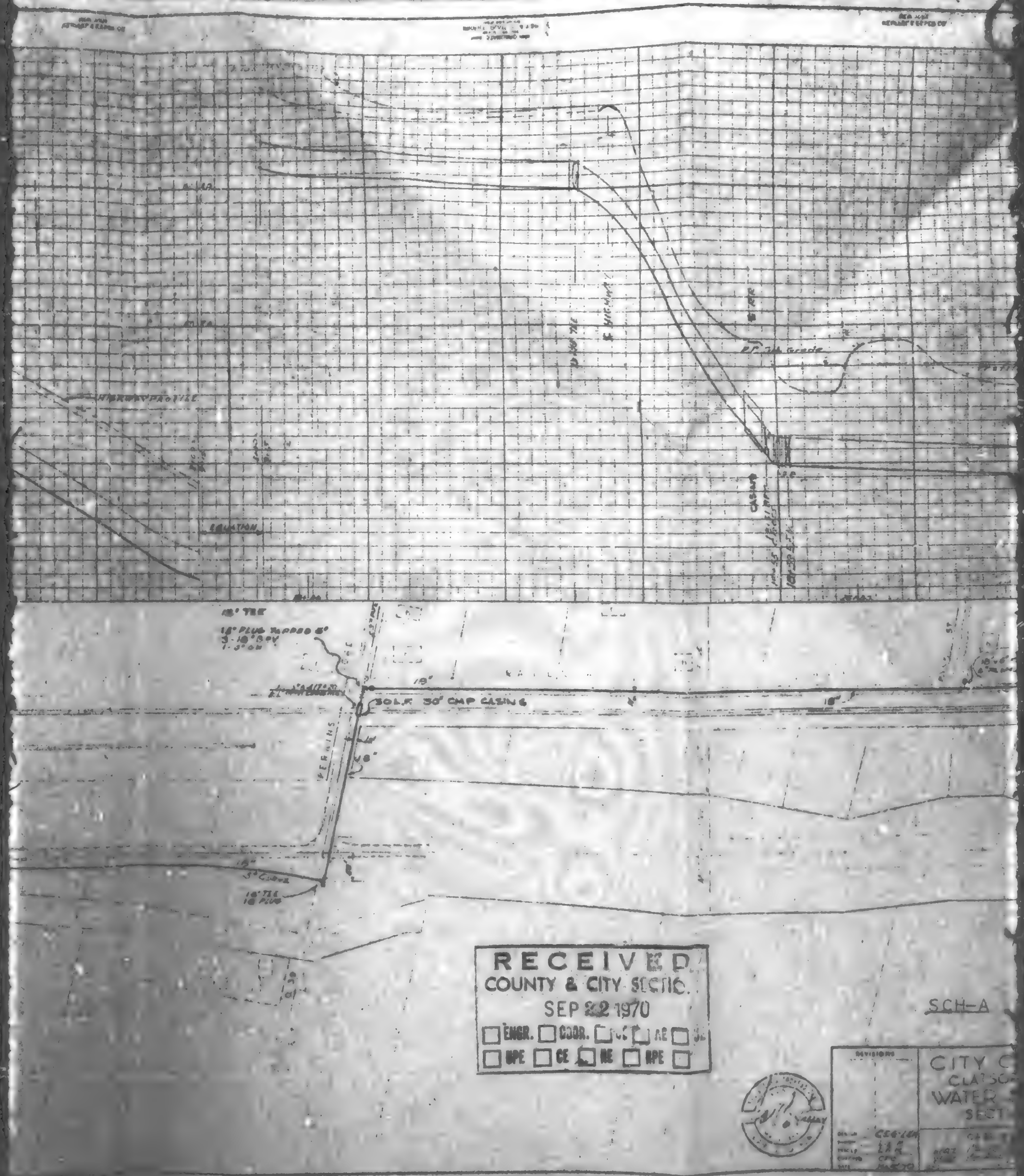
Sincerely,

CITY OF WARRENTON

Warrenton Water Department

ERB:JB

- New alignment -
US 1 - 101 -
SEC. MAIN 2
EQUATION 483+36 BK
= 484+00 AHD
10'-15" STEEL
6" R.M. (ANN. CY.
STATE LINE
SOUTH LINE
18"
48" CMP
42" CMP
18" CMP PL.NO.
18" CMP PL.NO.



RECEIVED
COUNTY & CITY SECTIO
SEP 22 1970
ENGR. COOR. LC LE
WPE CE RE RPE

SCH-A

DIVISIONS

CITY C
CLATSO
WATER
SECT

RECEIVED
COUNTY & CITY SECTION
SEP 22 1970
☐ ENGR. ☐ GEOR. ☐ ☐ ☐ ☐
☐ UPE ☐ CE ☐ RE ☐ RPE ☐

SCH-A

HUD-WS-ORE 63

REVISIONS

CITY OF WARRENTON
CLATSOP COUNTY, OREGON
WATER SUPPLY PROJECT
SECTIONAL MAP # 3

CARL E. GREEN & ASSOCIATES
CONSULTING ENGINEERS
PORTLAND, OREGON

8949

S Unit Astoria - Camp Rilea

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 16, 1970

SUBJECT: Relocation of US101
Warrenton

To:

H. S. Cox
County and City Engineer

B u i l d i n g

Attached are letters from John Hagemann and the City of Warrenton concerning the relocation of US101 through Warrenton.

Suggest that you contact the City. I would imagine that the City's statement regarding the relocation is a bit premature, and perhaps some discussion should be held with the City of Warrenton if this is the case.

Robert N. Bothman
Maintenance Engineer

RNB:mp
Attachments

RECEIVED
COUNTY & CITY SECTION
SEP 17 1970
☑ ENGR. ☑ COOR. ☐ LE ☐ AE ☐ CE
☐ UPE ☐ CE ☐ RE ☐ RPE

Green & associates
when did maps go to them?
Spring of 70.

9-17-70
F. Klaboe instructed me verbally to do nothing regarding this matter
Si Cox

8-12-71 - FBK says go with this & Clatsop Co. / DmH.

8949

FORM S-20 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

NOTED
H. S. COX

Salem Office
June 12, 1970

SUBJECT: Astoria-Camp Rilea, South Unit
Oregon Coast Highway
Clatsop County

To: Mr. H. S. Cox
County and City Engineer
B u i l d i n g

Enclosed are prints of plan sheets 6 and 7 of the subject area.

We have adjusted the profile on the "B" line so that the proposed construction is contained within the right of way widths previously established, except in the vicinity of the Columbia Beach Road. At that location it will be necessary to acquire some additional right of way from Clatsop County.

It seems to me that since this is public property and some of it will be used for the Columbia Beach Road connection we need not acquire fee title to the land. Perhaps it can be made a part of the agreement with the county. If you concur in this approach, will you please make it a part of the agreement?

D. J. BARBEE
Design Engineer

By Frank E. Terpin
FRANK E. TERPIN
Final Design Engineer

FET/bdr
Enc.
cc: Floyd Scott

NOTED
HAROLD
REYNOLDSON

Note 6-15-70
F.B. Klaboe request some-
time ago we hold up on
these agreements -
Dm H.

RECEIVED
JUN 15 1970
ENGINEER
COUNTY & CITY DIVISION

NOTED
MAINOR C. HOLMES

NOTED
R. H. PRANGE

NOTED
RICHARD UNREIN
B

NOTED
P. B. Arensmeier

Noted
Oscar H. Norberg

NOTED
DON HARWELL

RECEIVED
MAR 20 1970

OREGON STATE HIGHWAY DIVISION

8949

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

March 20, 1970

Pacific Power & Light Company
Public Service Building
Portland, Oregon 97204

ATTENTION: Mr. R. H. Sallee

RE: Preliminary Right of Way Map
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

F. B. KLABOE

Gentlemen:

Enclosed you will find one print of the preliminary right of way map, our file No. 8B-26-20, on the above subject project. This project has not been placed on our tentative schedule of contract lettings.

It is the obligation of the State to reimburse the Utility for the cost of adjusting, relocating, or removing its facilities which are located on private property. If you have such facilities and the enclosed information is sufficient, please prepare an estimate and sketch map in accordance with PPM 30-4 dated February 14, 1969. Right of way shown outlined in red has been optioned and that outlined in blue is owned by the State.

This estimate and sketch map, and a schedule for accomplishing the relocation should be submitted to Mr. Fred W. Sugnet, Field Utilities Liaison Engineer, 2960 East State Street, Salem, Oregon 97310. The sketch map and schedule must be submitted whether the relocation is reimburseble or not.

The sketch map must be in sufficient detail for our use in preparing an application for an amended or a new permit for your relocated facilities.

Very truly yours,

F. D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

RECEIVED
MAR 20 1970
OFFICE OF
STATE HIGHWAY ENGINEER

JMC:fw
Enc.
bc: F. B. Klaboe
L. H. Young
V. E. Skoog
R. D. Asburry
F. W. Sugnet

RECEIVED
MAR 4 - 1970
FOR FILING

8749

February 27, 1970

1933 }K
3254

Mr. Harold H. Long
Route 1, Box 537
West Linn, Oregon 97068

Dear Mr. Long:

In reply to your letter of February 18 in regard to our proposed Highway 101 improvement in Warrenton, I am attaching a section of our right-of-way print showing the rights-of-way that we will require between S. E. 13th Street and S. E. 14th Place. We have colored in yellow the Strinchen property to which you referred. The center line as shown on this map is the one that has been staked in the field.

It is hoped this map will give you the information desired.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

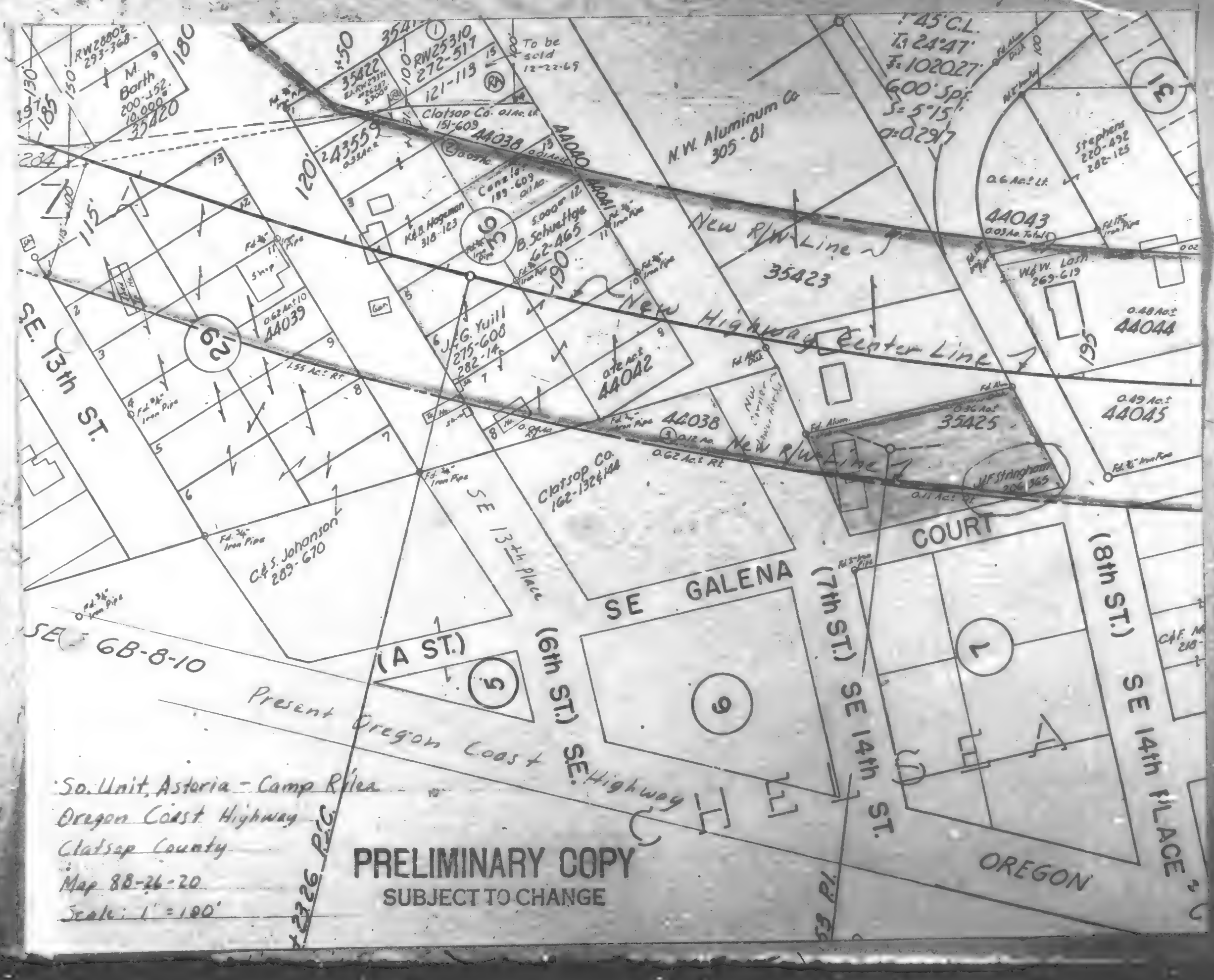
F. B. Klaboe
Assistant State Highway Engineer

F. B. KLABOE
NOTED

Enclosure

cc: Forrest Cooper
R. L. Porter
Victor D. Wolfe
D. J. Barbee

DJB:bdr srb


RW28802 293-368
M. Barth 200-152. 10.000 35420
35422
RW25310 272-517
121-113
To be sold 12-22-69
Clatsop Co. 01 Ac. Lt. 151-609
44038
44040
44041
44355 0.35 Ac. ±
Conzlo 189-609 01 Ac.
K&B. Hageman 318-123
B. Schweitige 5.000 ac ± 162-465
N.W. Aluminum Co 305-81
New R/W Line
35423
New Highway Center Line
45° C.L.
T=24°47'
T=102.27'
600' Spi.
S=5°15'
D=0.29°
Stephens 220-492 282-125
0.6 Ac.± Lt.
44043
0.03 Ac. To Rd
W&W. Losh 269-619
0.48 Ac.±
44044
0.49 Ac.±
44045
0.36 Ac.±
35425
W.F. Stringham 206-365
0.11 Ac.± Rt.
J.&G. Yuill 275-600 282-14
0.12 Ac.± 44042
0.62 Ac.± 44039
1.55 Ac.± Rt.
0.62 Ac.± Rt.
Clatsop Co. 162-132&144
C&S. Johanson 289-670
SE 13th ST.
SE 13th Place
(A ST.)
(6th ST.) SE
SE GALENA
(7th ST.) SE 14th ST.
(8th ST.) SE 14th PLACE
COURT
OREGON
SE 6B-8-10
Present Oregon Coast Highway
So. Unit, Astoria - Camp Rilea
Oregon Coast Highway
Clatsop County
Map 8B-26-20
Scale: 1" = 100'
PRELIMINARY COPY
SUBJECT TO CHANGE

Feb. 19, 1970

Dear Mr. Klaber:

I wish to obtain a piece of property in Warrenton, Ore; between 13th and 14th st across street from Mrs. Stringham's property. I can't seem to find out where Highway 101 is going. Land office in Astoria say they don't know. City Hall in Warrenton say they don't know.

Your name was given to me

and I hope you can give me the answer; Is Highway 10[illegible] going where it is presently staked out? If not how soon will it be possible to find out? and how?

Thank you for any help you can give me.

Sincerely.

Harold N. Long
Rt 1 Box 534
West Linn, Oregon
97068

RECEIVED
FEB 20 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 30 1969
FOR FILING

December 30, 1969

2933

Mrs. Mildred G. Stringham
Route 1, Box 198
Warrenton, Oregon 97146

Dear Mrs. Stringham:

As I advised you in my letter of December 4, a meeting was held in Salem on December 17 at which time the problems involved with the relocation of US101 on the South Unit of the Astoria-Camp Rilea Section, Clatsop County, were resolved.

I am forwarding your letter to our Right of Way Department so that they can consider your questions with regard to the sale of your property. Right of Way Agents will be contacting you in the near future to work out the details.

Thank you for being so patient with us and best wishes for a happy holiday season.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klabee
Assistant State Highway Engineer

FBK:srb

cc: Forrest Cooper
R. L. Porter
D. J. Barbee
D. H. Moehring - Encs.
R. D. Asburry

B/ups 12-19

Warrenton, Oregon
December 8, 1969

F. B. Klaboe
Asst. State Highway Engineer
Oregon State Highway Dept.
Salem, Oregon 97310

RECEIVED
DEC 10 1969
OFFICE OF
STATE HIGHWAY ENGINEER

Dear Mr. Klaboe:

Thank you for your prompt reply to my December 1 letter. I appreciate the information regarding the forthcoming meeting of December 17, and look forward to hearing from you again afterwards.

Regarding your question as to whether I would like to sell my property "as soon as possible" or wish to live here "as long as possible". The answer to this would depend on several points.

I would prefer to keep my property until after April 1971, if possible. At that time I will be eligible for a portion of my husband's Social Security and in a better position financially to move elsewhere. My main concern at present in that my roof may need some attention, and if I was assured I would be here two winters yet, I'd feel I could better afford to go ahead with this expenditure.

Also, as I mentioned in my letter of June 12, I am still considering installing some different type of heating system. In this regard, do you take into consideration any recent major expense when you appraise property?

If not, then I might be interested in selling "as soon as possible"--provided it wouldn't be until spring! Also my preference in the time of selling would depend mainly on how much you plan to offer me for my property. If I had some idea as to what this would be, I would be in a better position to give you a more definite answer to your questions.

Also, would be kind enough to tell me if bids would be opened on the house soon after you bought it?

Thank you so much for any assistance you can give me in this matter.

Sincerely yours,

Mildred G. Stringham

Mrs. James S. Stringham
Route 1 Box 195
Warrenton, Ore. 97146

P.S. If you plan to inspect the interior of my home in the future, please write me ahead of time for an appointment. Thank you.

RECEIVED
DEC 4 - 1969
FOR FILING

December 4, 1969

Mrs. Mildred G. Stringham
Route 1, Box 195
Warrenton, Oregon 97146

2933

Dear Mrs. Stringham:

Thank you for your letter of December 1 concerning the relocation of Highway 101 on the South Unit, Astoria-Camp Rilea Section in Clatsop County.

A meeting will be held in Salem on December 17 to try to iron out all the problems involved with this project and I will be in a much better position to inform you of our plans after this meeting.

In the meantime, I would like to know whether or not you desire to sell us your property as soon as possible or whether you would like to continue to live there as long as possible. If you will provide me with this information, I am sure that I will be able to give you answers to your questions in the near future.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

cc: Forrest Cooper
R. L. Porter
D. J. Barbee - Enc.
D. H. Moehring - Enc.
R. D. Asburry - Enc.

Warrenton, Oregon
December 1, 1969

F. B. Klaboe
Asst. State Highway Engineer
Oregon State Highway Dept.
Salem, Oregon 97310

Dear Mr. Klaboe:

On June 23, 1969 you wrote me regarding the relocation of Highway 101 in relation to my property, after my letter to you inquiring about it. At that time, you indicated you would need only a small triangle off the southeast corner of my land.

Sometime afterwards Mr. Weber told me the lines had been moved farther west towards my property, and just recently your stakes were put in the back yard just behind the garage. I now understand that you <u>will</u> be in need of the house and land.

Since this is true, is there any possible way you could give me some idea of just <u>when</u> this property will be needed? Due to the fact that I am a widow, I could not possibly buy back my home and have it moved elsewhere, so I must try to make plans to find me another home. It would certainly help me if I could have a little idea of how much time I have to do this since it is quite possible I will have to move to another location away from the coast--even to another state.

Any assistance you could give me regarding a possible date I will <u>have</u> to move would be greatly appreciated.

Thank you very much.

Sincerely yours,
Mildred S. Stringham

Mrs. James S. Stringham
Route 1 Box 195
Warrenton, Oregon 97146

P.S. Does the State Highway Department ever buy a property <u>ahead</u> of the time it might be needed?

RECEIVED
DEC 3 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 24 1969
FOR FILING

2933

June 23, 1969

Mrs. James S. Stringham
Route 1, Box 195
Warrenton, Oregon 97146

Dear Mrs. Stringham:

Re: South Unit, Astoria-Camp Rilea, Oregon Coast Highway, Clatsop County

Reference is made to your letter of June 12 concerning your property and its relation to our proposed highway relocation.

Based on our latest plan, we will not require your house proper but only a small triangle off the southeast corner of your holdings.

It would appear that you should enjoy the use of your home to the fullest.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klahne
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
Victor D. Kolfe - K2933
D. J. Barbee
D. H. Moehring
R. D. Asburry - Enc.

REFERRED TO
Klooe
BY DEPUTY STATE HIGHWAY E

REFERRED TO
admin
BY SECRETARY

Warrenton, Oregon
June 12, 1969

8979

OREGON HIGHWAY DEPT.
Salem, Oregon

Gentlemen:

I recently made arrangements to have an oil furnace installed in my home; then talked to Mr. Loren Weber, head of the surveyors in this area, a few days later.

Mr. Weber informed me that eventually the State will need my property when they put the new section of Highway 101 through here. (My property borders the Northwest Aluminum Co.'s on the Westside).

While I realize it is probably impossible for you to give me any exact date when this portion will be built, I am wondering if you could give me an approximate date. My income is solely a small widow's pension from the Veterans Administration, since the death of my husband James S. Stringham in July 1968, so I am not in any position to spend money for this furnace without first consulting you for some possible answers to two questions.

Would it possibly be a year or two before you would need this land? And also, would the State consider the fact my furnace was so new when they got ready to appraise my home and land?

When my husband was living we burned wood and used an oil burner which requires carrying a tank. Both tasks are too difficult for me to continue doing so I must install some new type of heating before winter.

Any assistance you could give me in helping me to come to some decision as to what I should go ahead and do, would be very much appreciated. Thank you kindly.

Sincerely yours,
Mildred S. Stringham

Mrs. James S. Stringham
Route 1 Box 195
Warrenton, Oregon 97146

RECEIVED
JUN 16 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 16 1969
OREGON
STATE HIGHWAY COMMISSION

RECEIVED
JAN 14 1970
FOR FILING

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

January 12, 1970

Spokane, Portland & Seattle Railway Co.
1104 N. W. Hoyt Street
Portland, Oregon 97207

8949

ATTENTION: Mr. H. F. Moy

Re: Preliminary Right of Way Map and Profile
South Unit, Astoria-Camp Rilea Sec.
Oregon Coast Highway
Clatsop County

Gentlemen:

Herewith you will find one (1) print of a portion of our Right of Way Map No. 8B-26-20 showing the abandoned and proposed centerlines of the above captioned section between Highway Stations 209 and 269. You will also find attached a preliminary profile of the proposed highway between Highway Stations 218 and 390 dated January 2, 1970.

This is being sent to you in line with your recent verbal request.

The revised PUC Map and preliminary plans will be submitted to you as they become available.

Very truly yours,

F. D. Morgan
Construction Engineer

By: ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss
Enclosure

cc: F. B. Klaboe
D. J. Barbee
R. D. Asburry
F. W. Sugnet

NOTED
F. B. KLABOE

RECEIVED
JAN 13 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 22 1969

(12-67)

UNITED STATES GOVERNMENT

FOR [illegible]

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: December 12, 1969

In reply refer to: 08-35-EC

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

8949

FROM : R. E. Simpson, Division Engineer
Salem, Oregon

Klaboe

SUBJECT: Oregon Project F-115(-)
South Unit-Astoria-Camp Rilea Section
Oregon Coast Highway
Location-Design Approval

Based on information furnished in Mr. Young's December 4, 1969 letter I concur that the subject project had developed under preceeding regulations beyond the locatbu-design approval stage prior to the issuance of the current PPM 20-8. Therefore, no further actions are required.

12-22-65

REFERRED TO

By Asst. State Hwy. Engr

NOTED
F. B. KLABOE

RECEIVED
DEC 16 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
AUG 2 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING
B949

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

August 18, 1969

Mr. E. A. Hudson
Right of Way and Tax Agent
Oregon Electric Railroad
Post Office Box 571
Portland, Oregon

Re: South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

Dear Mr. Hudson:

As per our telephone discussion of August 12, we are enclosing a print of Right of Way Map SB-26-10 upon which we have superimposed two additional alignments. The original alignment (black) and a recently staked line (red) have been superseded by the green alignment which has tentative approval of the Parsons-Jerdon Corporation. The green alignment has not been staked, as yet, but we hope to complete the field work as soon as crews may be spared from construction projects.

Very truly yours,

FORREST COOPER
State Highway Engineer

By D. J. Barber

D. J. BARBER
Design Engineer

Enc.
CCW/bdr
cc: F. B. Klaboe
R. D. Asburry

RECEIVED
AUG 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 19 1969

UNITED STATES GOVERNMENT

Memorandum

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Bureau of Public Roads
Box 300
Salem OR 97308

DATE: June 17, 1969

In reply refer to: 08-35.EC/400.1

Copy to Hearing file
Klaboe

TO : Mr. Forrest Cooper, State Highway Engineer
Salem, Oregon

8949

FROM : Mr. R. E. Simpson, Division Engineer
Salem, Oregon

SUBJECT: Oregon Project F-115(-)
S. Unit Astoria - Camp Rilea Section
Oregon Coast Highway, Clatsop County
Public Hearings

We concur that no further corridor hearing is necessary for this project.

As the corridor has been established, purchase of hardships under IM 20-1-69, paragraph 4, is considered acceptable.

6-19-69

By Asst. State Hwy. Engr.

NOTED
F. B. KLABOE

RECEIVED
JUN 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

BUY U.S. SAVINGS BONDS REGULARLY ON THE PAYROLL SAVINGS PLAN

RECEIVED
JUN 11 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

June 9, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N.E.
Salem, Oregon 97301

File 43559-Hunley
S. Unit Astoria-
Camp Rilea Section
Oregon Coast Highway
Clatsop County

Dear Mr. Simpson:

Under the terms of IM 20-1-69 we are requesting your authorization to purchase the above property as a hardship prior to a design hearing.

We believe this project complies with the requirements that no corridor hearing is necessary as nearly all of the right of way has been purchased on the basis of a hearing on October 29, 1959.

There will be some additional right of way necessary due to a revision to make room for a proposed aluminum plant. This file falls within that category.

Very truly yours,

G. E. ROHDE
Chief Counsel

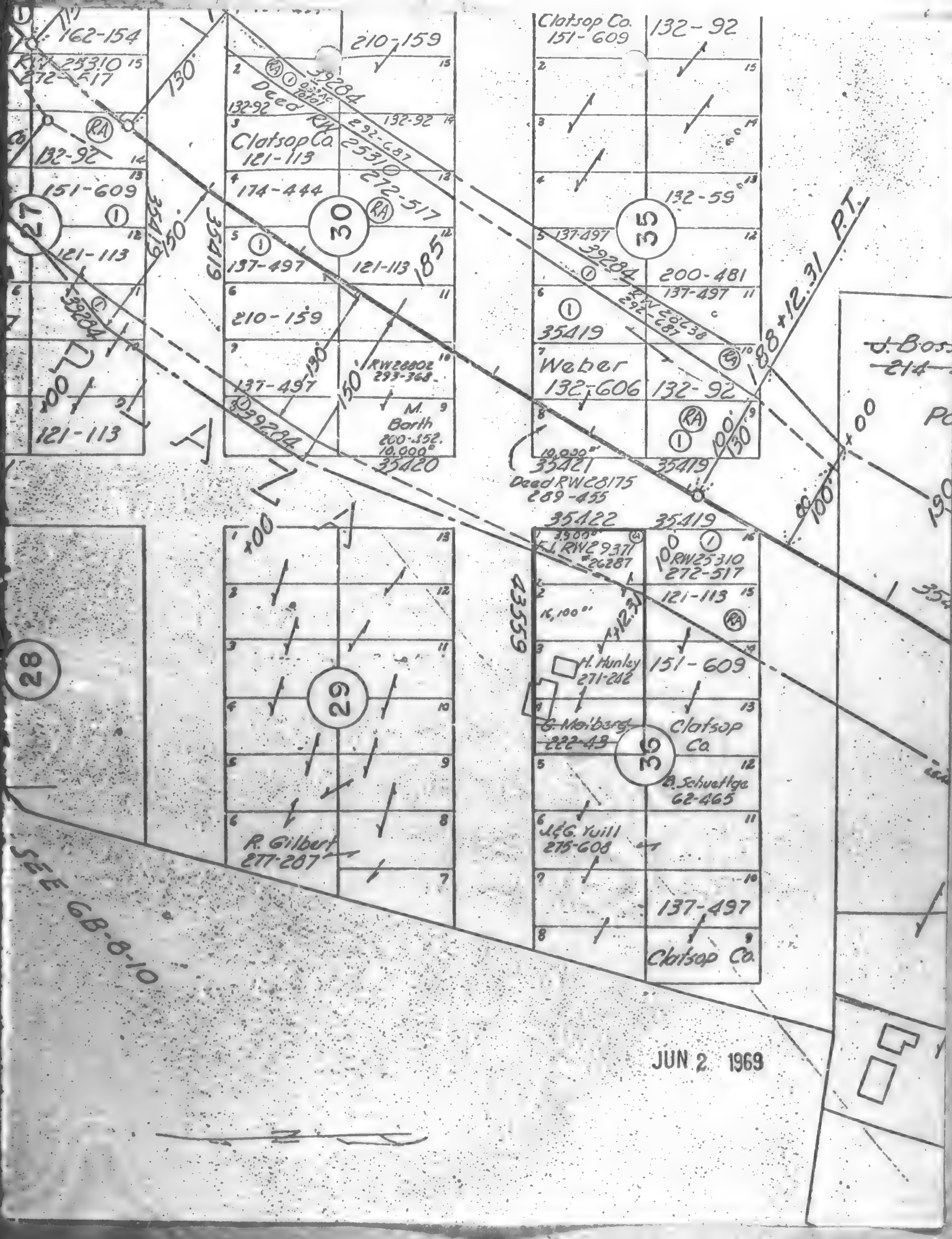
NOTED
R. L. PORTER

John R. Oakes
Assistant Right of Way Engineer

Encl.
JRO:DH

cc R. L. Porter
F. B. Klaboe
L. H. Young
D. J. Barbee
V. E. Skoog
G. E. Rohde
M. R. Mitchell

RECEIVED
JUN 9 1969
OFFICE OF
STATE HIGHWAY ENGINEER


162-154
RW 25310 272-517
132-92
151-609
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Clatsop Co. 121-113
174-444
RW 25310 272-517
RW 28802 293-368
M. Barth 200-352. 10.000°
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RW 28238 292-687
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35422
3.900°
F.J. RW 29371 #26287
K.100"
H. Hunley 271-242
151-609
G. Meiberg 222-43
Clatsop Co
B. Schuetlga 62-465
J&G. Yuill 275-608
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R. Gilbert 277-287
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SEE GB-8-10
JUN 2 1969

RECEIVED
MAY 13 1969
FORM 6-30 (12-67)

FOR FILING

8949

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon

April 25, 1969

SUBJECT: File 35422 - Huntley
S.Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

To: Mr. John R. Baker
Assistant Right of Way Engineer
Building

Reference is made to hardship correspondence on subject file which you forwarded to this office some time ago.

I had hoped to have this cleared long ago since it will be a total taking under the line revision to miss the Aluminum plant; however, I have been advised that the agreement has not been finalized.

I hope that you can forestall rebuilding of the burned out home until approval to purchase is received. Please advise me if reconstruction appears imminent and I will try again.

D. J. Barbee
Design Engineer

By A. D. Olsen
A. D. Olsen
Preliminary Design Engineer

ADO:jp
cc: F.B. Klabee

RECEIVED
APR 25 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED DEC 11 1968

Pertains to total project Sta. 168 to 317

Astoria – Camp Rilea (S. Unit) 4-Lane

Camp Davies July 68

Item	Located Line	Alternate Line
Construction Cost ①	$1,742,602	$1,753,097
Survey Cost ②	17,536	27,693
R/W Cost ③	252,391	311,110
R/W Aquisition Cost ④	30,500	30,033
TOTALS	$2,043,029	$2,121,933
Surplus property on Located Line to be sold if alternate line is built	*−1,169	
Administrative cost of selling	1500	
*Credit to Loc. Line	$1169	
	$2,041,860	

Total Cost Alternate Line $2,121,933
Total Cost Located Line 2,041,860
Addit. cost for Alternate Line $80,073

① Construction costs are computed for the entire project from station 168+00 to 317+00 on both the Located and the Alternate Lines.

② Survey costs on the Located Line are the actual charges to this section to date. On the Alternate Line the same charges are used with a prorated additional cost for the additional length (1.7 Sta.) plus a prorated cost ($10,004) for a section (Sta. 183± to 268±) on the located line that cannot be used if the alternate line is used.

③ R/W costs are actual cost of purchased parcels plus appraised cost for R/W not yet purchased. The estimate covers the entire project (Sta. 168± to 317±). The higher cost on the Alternate Line as compared to the Located Line is due to the fact that part of the located line right-of-way was purchased from the county for $2.

④ R/W aquisition costs are computed as follows: On purchased parcels 6%, on formally appraised parcels add 20% contingencies, then 6% of that total. On Liason appraisals no allowance

RECEIVED
JUN 17 1968
FOR FILING

8949

June 13, 1968

Mr. Anne E. Hancock, President
International Transportation
Equipment Lessors, Inc.
Post Office Box 454
Mercer Island, Washington 98040

Dear Mr. Hancock:

We have your May 27 letter concerning title to certain properties in Clatsop County.

The information you furnished has been transmitted to the Department's Land and Title Section who will investigate the situation and take what action is indicated.

Very truly yours,

Everett Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:cm
cc Everett Cooper
Victor D. Wolfe
G. E. Robb- attn. A. J. Vidmich

File Nos. 12566 & 30945
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

FORM E-30 SOM 10-68

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem Office
June 4, 1968

SUBJECT: Files Nos. 12566 & 30945
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

To: Mr. Rod Porter
Deputy State Highway Engineer
B u i l d i n g

I have been requested by George Rohde to draft a short resume of the matters discussed in Mr. Amos E. Heacock's letter of May 27, 1968, which affect property presently owned by the Highway Department.

Mr. Heacock first questions the title to the land purchased for "Highway 101 cut-off across Young's Bay". I presume he is referring to Parcels 1 and 2 of the property acquired from Clatsop County on our File 30945. The deed from the County to the State included various other parcels which were required in connection with the construction of the Astoria-Camp Rilea Section of the relocated Oregon Coast Highway. Since this was a gratis transaction, title insurance secured in connection with this property was in the minimum amount of $1,000.

NOTED R. L. PORTER

Next, Mr. Heacock questions the Highway Department's title to that property which was acquired from Columbia Transportation Company on our File 12566. This acquisition was by warranty deed and was insured by a title policy in the amount of $12,000, which was the consideration paid for the property used by the State as the Astoria Ferry Landing.

The letters to Clatsop County and the City of Astoria which Mr. Heacock refers to, in which he questions the title to much of the tidelands in the Astoria area, may involve some other property which the Highway Department has or claims title to. Since his interest in this other property appears to be that of a public spirited citizen, I feel that at present we should not concern ourselves with the same.

George Rohde has indicated to me that the Division of State Land is in the process of investigating the question of the titles raised by Mr. Heacock and has asked that I be present at the next State Land Board meeting on June 11, 1968, at which time the results of the investigation will be presented. I will prepare and furnish you with a copy of the memorandum covering the discussions and decisions of this meeting.

Being returned herewith is Mr. Heacock's letter and attachments thereto. A xeroxed copy of the letter has been made for our files.

Also included is a draft of a reply to Mr. Heacock's letter which you may wish to use.

A. J. Vinuesa
Staff Attorney

AJV:bb
Atts.

cc: Mr. G. E. Rohde
Mr. W. H. Haskin
Mr. D. H. Hoehring

RECEIVED
JUN 11 1968
OFFICE OF
STATE HIGHWAY ENGINEER

ITEL
INTERNATIONAL TRANSPORTATION EQUIPMENT LESSORS, Inc.
Post Office Box 454 • Mercer Island, Washington, 98040
Telephone 206-232-6638

May 29, 1968

The Honorable Tom McCall, Governor
and Chairman, Land Board,
State of Oregon,
The Capitol,
Salem, Oregon

Dear Governor McCall:

The purpose of this letter is to sincerely and earnestly urge you to assume the authority and the responsibility to protect and increase the revenue producing capabilities of the submersible and submerged lands that are dedicated to the common school fund.

We believe that yours is the best Land Board that has been elected in years and probably the only one capable of rolling back the give-away lands legislation of 1963 and opposing the give-away legislation now pending. We believe you have been badly advised on the significance of the submersible and submerged land act of 1963 and the importance of the landmark decision of Corvallis Sand and Gravel Company vs. the State Land Board.

The legislation surrendered the primary rights to submerged lands to a large number of riparian landowners many of whose titles to tidelands and new lands as against the state are extremely questionable, to state it mildly. Now these titles are to be cleared by legislation. The 1963 legislation left the Board with no authority to accept competitive bids against the riparian owners rights to increase the returns to the common school fund. The Board may negotiate only with the riparian owner.

Since the present staff of the Board had very much to do with the drafting of this legislation, the Board may find it difficult to disassociate itself from the policies of its staff. Worse than that, the ability of the Board to fulfill its trusteeship under Oregon's Constitution to employ the lands to develop the maximum funds for the education of present and future school children is seriously impaired.

This impairment is substantial in amount. As you could see from the river chart last Thursday at the Board meeting, over 100 square miles of river land in two states with access to scarce deep water is available. At an average of only 4¢ per square foot per year, these lands can return $100,000,000 per year of revenues for schools by the year 2000!

Most of the available land is in Oregon, but most of the deep water channel available abuts the Washington side. The Tongue Point and

Maritime Commission harbor properties on the Oregon side, however, are the most valuable developed facilities available. To the extent that these facilities were constructed on new lands, submersible lands and submerged lands, they still belong to the Land Board. The lands were stolen from the Board and eventually were sold by Clatsop County to the federal government.

As one result of the 1963 law, the Land Board must overthrow the fantastically illegal Van Dusen-Brown deed described in the enclosed letter to the Board of Commissioners of Clatsop County--if the Board is to have a negotiating position with the federal government for disposition of these federal properties. The proposed legislation of the Interim Committee on Public Lands would confirm this steal and a great deal of additional thievery from the common school fund.

Since the rights of Clatsop County to sell state lands to the Port of Astoria to resell to the bondholders for Northwest Aluminum Company were derived from the same land fraud as the rights of Clatsop County to sell the federal government were, Oregon's honor and integrity may be publicly jeopardized by the failure of this Land Board to act in the Skippanon Channel matter for the common school fund. Whenever the federal government proposes to sell the Maritime Commission land to private parties or to the Port of Astoria we have no choice but to intervene to maintain the integrity of our position in all these matters.

I as well as Glenn Jackson of your State Highway Department was sending information to Oregon's senior senator for some time before he intervened to prevent the steal of Tongue Point by the City of Astoria on behalf of a small group of Astoria businessmen. We must intervene again if common school fund rights are not respected or if the federal lands are proposed to be sold to the Port of Astoria.

It is a strong lobby led by Oregon port authorities that is in the forefront of the present effort to quiet titles for misappropriated state lands. It is the proposals of this group that your staff is heeding now in supporting legislation to confirm all titles up to a cutoff date. The safe riparian rights acquired thereby is the necessary prerequisite for another round, this time to steal the submerged land for little revenue to the common school fund. If the Land Board has supported or is supporting either the 1963 legislation or the proposed legislation it is violating its trusteeship for the common school fund.

Indeed, the alleged difficulties of determining old tideland boundaries--a reason given by the staff for supporting the pending legislation--is invalid. It is the private landowner who has the burden of proof of his boundaries if he wishes to contest the state's title. The state got its title first.

The staff is unworthy of the best Land Board Oregon has fielded in 96 years if it uses the pending legislation argument for failure to contest the ownership of the submerged lands of either the Skippanon Channel properties or the properties sold to the federal government by Clatsop County.

The Land Board now has less effective authority than a local Oregon port authority. This is because Land Board authority has withered away from lack of use. Fortunately, the Oregon Supreme Court found last month that this is no barrier to a Land Board acting now. Port authorities with their powers of condemnation can now take over any desirable riparian land opposite valuable deep water. (The Skippanon Channel property riparian lands, for example.) However, the true riparian landowner back of the Skippanon property may be difficult to find. State land extends towards the uplands. The dike line which is the uplands boundary of the parcel Mr. Haines applied for was put there to prevent the tide from flowing over state land.

As public corporations authorized by law, port authorities are considered without further investigation to be in the public interest. For this reason, little attention is paid to the ridiculously small amounts paid into the common school fund for any land that any port authority takes over and fills with Army Engineers provided river bottom spoil—the spoil also belonging to the common school fund.

The benefits of low acquisition costs are passed on to industry—not to the schools. However admirable it may be to support industry, Land Board members should never forget they are sworn by their oath of office to oppose this unconstitutional indirect diversion from the common school fund.

In summary, therefore, the Land Board has historically, without a struggle, abdicated its constitutional role as the trustee, protector, defender and developer of the common school fund. It has surrendered its constitutional functions to the staff, to the legislature, and to port authorities that pledge allegiance to industry, not to the school fund.

The Land Board has need of our services to reassert its constitutional function far more than we need the Land Board for our developmental services. A Land Board that finds it necessary to deal with government and private land thieves in Clatsop County to provide land for industry is hardly the potent, proud and businesslike representative of the peoples land that our company was organized to serve.

On the other hand, a knowledgeable and capable independent development company that has done its "homework" carefully for six years offers the Board the capability of promotion and development of

potentially huge revenues for the education of Oregon's children. It asks no profit on land. This is the birthright of Oregon's children. It, like any laborer worthy of his hire, asks only compensation for its services.

Though a small company, we have spent from $150,000 to $200,000 of cash and services in developing the right answers before executing development. We are willing to accept the constraint of only such land titles and such authority as the Land Board possesses. We shall, however, develop and extend this authority by exercising it. Besides our own legal staff, however, we would expect to call upon the legal resources of the Attorney General to support the state's titles and authority. We have taken the liberty, therefore, of sending a copy of this letter to the Attorney General, though to no one else outside of the members of the Land Board. If you do not agree with our position today, we may reach agreement at some time in the future.

Our application for the state's rights to new lands, submersible lands and submerged lands in front of the Commercial Hotel property is designed to test the 1963 law. If the law is constitutional, our company and our company alone can negotiate for all the deep water access land to the pierhead line, split the Astoria waterfront in half and isolate the potential Skippanon Channel deep water tanker, bulk ship, and containership docks from the developed lighter and barge assembly facilities of Tongue Point and the Maritime Commission harbor.

These are our riparian "rights" under the 1963 law—untested in the courts. Of course, we are prepared to "take a dive" in such a court contest if the court rules that the Land Board has the powers and perhaps even the duty to assemble the land in renegotiable leases and have it developed for the highest available revenues to the common school fund as well as for the most remunerative industrial development. Our object, of course, is to demonstrate that the Land Board's constitutional authority to protect and develop the common school fund exceeds the legislature's authority to give away the Land Board's rights to new lands and submerged lands to a riparian landowner. We do believe that Corvallis Sand & Gravel vs. the Land Board is a landmark case and whether "dicta" or not, will not be reversed.

The Skippanon Channel lands application by Mr. Haines is a serious and careful bid for state lands development intended to be the highest possible bid. Development is proposed on long term leases renegotiable only as to rental fees every five years after the first negotiated rate for ten years. All revenues less costs and a development fee are offered the common school fund under the proposal. In the event of competitive bids we are prepared to reduce our fee to as little as a token $1.00 and secure our remunerative fees through subscription among the several school districts of Oregon to benefit from the fund.

Our action proposal would be first to clear title for the Skippanon Channel facility and conveyor belt lands for Northwest Aluminum Company development. The work would be completed on a minimum fee basis with a fair rental figure submitted to the Board for approval for the first ten years with rents renegotiable on the 10th anniversary of the lease and every five years thereafter. Our company has the legal, title research and land surveying facilities to perform this service.

We would recommend state quit-claims for all property either clearly of private title, or of doubtful title or where little public purpose would be served by contesting title. To avoid delay for Northwest in building their dock, transfer, and conveyor belt facilities we would seek a court stipulation by the contesting parties fixing the maximum value involved so that Northwest could post bond in that amount and build its facilities without title risk to the bondholders.

However, we would seek agreement with Northwest under which bauxite transfer facilities from ship to conveyor belt would be designed for transfers from ship to barge as well. In addition, apart from Northwest's facilities, alumina transfer facilities should be provided in the same deep water dock facility. Other future or existing aluminum plants, either in Clatsop County or up the river, should have these facilities available. The additional users would help amortize the equipment and dock facilities investments. More land revenues would be developed for the common school fund.

Finally, we would seek to link the deep water ship facilities of the Skippanon Channel with the shallow water lighter and barge assembly facilities of Tongue Point and the Maritime Commission harbor. The Land Board's title to the new lands, submersible lands and submerged lands of the federal facilities would be asserted. The U. S. Foreign Trade Zones Board consisting of the Secretary of Commerce, the Secretary of the Treasury and the Secretary of the Army have the authority under the Foreign Trade Zones Act of 1934 to grant the advantages of Foreign Trade Zone status for contiguous lands in two states. The Board also has the authority to provide any federal land and facilities in the Zone to the grantee upon such terms and conditions as in their judgment should be negotiated with the grantee.

If working with Port of Longview Development but not with ours. I wonder if this paragraph is where we let our Columbia Road Cut.

Consequently, the Skippanon deep water facility and the federal facilities are sufficient to begin Columbia Freeport. The rest of the lands on both sides of the river may be added later by zone amendments. The federal facilities already have the high fences and the water boundaries required by the Board for protection of the customs revenues.

This company is prepared to bring together five states, Oregon, Washington, Idaho, Montana and Alaska to co-sponsor the Columbia Freeport

— who gives them such authority?

land bridge terminal facility. The principal contenders now for the Asia-America-Europe terminal are Oakland, California, Seattle, Washington and two locations in Canada.

While this letter does not have the space to document our market and product research and engineering conclusions, we know that the factors that will assure winning of this multi billion dollar industrial prize are:

1. The Columbia River and the Columbia River to Puget Sound Canal facilities for assembling and distributing cargo in barges and lighters.

2. The Northwest's backhauls of logs, forest products, grain, ores, coal and liquefied petroleum gas for Asia.

3. The availability of seven transcontinental railroads to compete for the hauls across the land bridge, compared to only two each in Oakland and in Canada.

4. The Department of Defense' requirements for dispersal of logistics facilities throughout the Northwest instead of concentration in the Oakland, Alameda and San Francisco triangle.

5. The huge acreage of industrial sites with lighter access to the superport that is available.

6. The foreign trade attractions of the customs advantages of whole factory complexes within the freeport facility.

7. The bypassing of the Cascades mountains rail haul by barge transportation up the Columbia or rail transit through the Columbia River gorge.

8. A containerization system and an international pool of containers that will attract the lowest transcontinental trainload rates for the land bridge transit together with economical transfer capabilities ship to rail to ship.

All Northwest Railroads have offices in Tokyo now. All are joining in filing the new trainload transcontinental rates. However, ITEL, Inc. has the only modular containerization system available which is capable of loading twice the containerized cube and up to 4½ times the containerized weight aboard flatcars or within boxcars and refrigerator cars. ITEL also has a Northwest traffic service company standing by to negotiate the lowest transcontinental trainload rates based upon the greater utilization of train cube and weight space. In addition, the larger units available for transfers between ship or lighter to rail or vice-versa slashes handling costs.

Furthermore, Pacific containership service is the most economical and the most adaptable to LASH type (Lighter-Aboard-Ship) containership equipment. For assembling entire lighter loads for lifting aboard ship the lighter and barge assembly and distribution facilities of the Columbia River and the future Columbia River to Puget Sound to Canada and Alaska canal and inside passage are ideal. Would you please call this development opportunity to the attention of Oregon's Department of Commerce and Economic Development and ask the Department head to contact his counterpart, Mr. Daniel Ward in Olympia?

For the above reasons and more, you are earnestly urged to seek an executive, rather than a legislative solution to the problem of state land titles and their capability of assembly into a zone for transportation and industrial development. On Wednesday the 29th of May I shall meet with staff members of the Washington State Department of Commerce and Economic Development in the first action or implementation meeting for establishing the land bridge terminal, freeport and an international plywood-based containerization system.

This staff session is in preparation for a State Development Board meeting that is scheduled for the 16th or 17th of July. This in turn may be the vehicle for preparing and sponsoring a symposium in September for shippers and carriers of the various modes of transportation. The purpose may be to secure a consensus for standardization of containerization sizes, tare weights and tare cubes and land bridge transfer facilities (wherever employed) to promote a Pacific land bridge terminal or terminals in the Northwest. The Chairman, Senate Commerce Committee, Senator Warren G. Magnuson has agreed to keynote the symposium with an address and to lend support to any general consensus that may be reached. Senator "Bob" Bartlett of Alaska, Chairman of the Maritime Subcommittee of the Commerce Committee will also be asked to take part.

If the symposium favors it, the five-state sponsorship of Columbia Freeport might result. Since the determinative factor for a land bridge terminal may be the industrial land in reserve, the State of Oregon rather than a host of riparian landowners needs to control its lands. Otherwise, the Columbia Freeport and land bridge terminal project could become a free-for-all for land speculators in riparian rights.

I would like to close my petition to the Land Board on this note. It was significant that of all the delegation from Astoria that appeared to answer the challenge of Mr. Haines and myself to Clatsop County's alleged title to the Skippanon Channel land there was no elected local government official. No elected local government official will support the steals from the Land Board publicly. The Land Board, itself an elected body, is expected to pull chestnuts out of the fire for local government with no local government exposure to risk.

To demonstrate this political fact to the Land Board we have addressed our strongest letters to the Board of Commissioners of Clatsop County and to the City Council of the City of Astoria demanding that they take a public position and offering a reasonable voluntary solution. When these elected local officials lay their heads on the election chopping block to support local government titles to state lands they have sold and do plan to sell to the state and to the Port of Astoria and to the bondholders for Northwest Aluminum, then they have earned the right to respect for their point of view.

We have clearly pointed out how Clatsop County and the City of Astoria can approach the Land Board with clean hands to seek a solution. Is there any reason for the Land Board to support the alleged land titles of the County and the City before their elected officials take a position?

Very truly yours,

INTERNATIONAL TRANSPORTATION
EQUIPMENT LESSORS, Inc.

Amos E. Heacock, President

cc: The Honorable Clay Myers, Secretary of State
The Honorable Robert Straub, Treasurer
The Honorable Robert Y. Thornton, Attorney General

Encl: Letter to Board of Commissioners, Clatsop County
Letter to City Council, City of Astoria
Letter to State Highway Department
Letter to Interim Committee on Public Lands

MAY 31 1962

REFERRED TO Vidovich FOR See my note

ITEL

INTERNATIONAL TRANSPORTATION EQUIPMENT LESSOR, Inc.

Post Office Box 454 • Mercer Island, Washington, 98040

Telephone 206-232-6638

7269

RECEIVED
MAY 31 1968
LEGAL & RIGHT OF WAY

REFERRED TO
Admin
BY SECRETARY

May 27, 1968

12566
Astoria Ferry Landi

State Highway Department
Salem,
Oregon

Gentlemen:

Enclosed are copies of letters of this date to the County of Clatsop and the City of Astoria.

The former letter indicates that your Department purchased land for the Highway 101 cut-off across Young's Bay from Clatsop County although the property was, in reality, owned by the State Land Board.

The latter letter relates that your Department purchased land and improvements from Columbia Navigation Company for $12,000 although the land was owned by the State Land Board.

The principal problem lies in the fact that revenues were indirectly diverted from the common school fund and this state recognition of invalid land deeds has compromised the integrity of the Land Board's function as de facto trustee for that fund.

This is called to your attention for any action the Department and the Land Board deem appropriate.

Very truly yours,

INTERNATIONAL TRANSPORTATION EQUIPMENT LESSORS, Inc.

Enos E. Hancock

Enos E. Hancock, President

Encl:

Letter to Board of Commissioners, County of Clatsop
Letter to City Council, City of Astoria

RECEIVED
MAY 29 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 29 1968
OREGON
STATE HIGHWAY COMMISSION

Market and Product Engineering for Containerization

May 27, 1968

City Council
City of Astoria,
Astoria, Oregon

Gentlemen:

From the press of May 15th and a report from your last Council meeting I understand that you are considering the possibility of purchasing the 11th Street ferry landing from the Oregon State Highway department.

You are hereby advised that our extensive title research establishes that this property belongs not to the State Highway Department, but to the State Land Board. The property was originally sold to the Columbia Navigation Company in 1933 by the City of Astoria for one dollar. There is no evidence that the City of Astoria ever had any title whatsoever to the property. The City, indeed, simply appropriated it. No compensation whatsoever was ever paid over to the Irreducible Common School Fund of the State of Oregon to which all such funds are dedicated by the state Constitution and for which the State Land Board are the de facto trustees.

Furthermore, relying upon the City's non-existent title the State Highway Department paid the Columbia Navigation Company $12,000 for the property. It is our position that the Irreducible Common School Fund and/or the State Highway Department has been damaged to the extent of $12,000 plus all taxes illegally levied upon the real property for the benefit of the City when the property was nominally that of Columbia Navigation Company. What was paid as taxes to the City for the unimproved land should have been paid as rentals to the Common School Fund. We are so advising the State Land Board and the State Highway Department by copy of this letter.

In some matters concerning the State Land Board's title, including the application of Mr. George Haines of Astoria for a lease of the Skippanon Channel property claimed by the County of Clatsop and by the City of Warrenton, lease privileges that eventually may be put to competitive bid, rather than defensible property rights are involved. However, our company does assert property rights in interest for the portion of the ferry facility that lies north of our original shorelands property and the pierhead line of the Columbia River.

Our company has exercised its riparian property rights as shoreland owner under the legislative act of 1963 to apply to the State Land Board to lease all the new lands, submersible lands, and submerged lands north of Lots 2 and 3, Block 135, Shively's Asteria, to the

pierhead line. The Commercial Hotel and the adjoining vacant lot are located upon the above described land. Only the riparian landowner may negotiate these rights to lease or to buy from the Land Board unless the riparian owner chooses not to assert these rights, in which case public bids may be solicited. The easterly end of the ferry landing facility is covered by this application. An additional portion extending from our property westerly to 14th street extended has been applied for by Mr. George Haines pursuant to his claims for property rights in and to the John Jacob Astor Hotel in which he invested over $130,000 in real and personal property.

However, International Transportation Equipment Lessors, Inc. purchased the rights-in-litigation of Mr. George Haines' California company, Ocean Investment Company, one month before the sheriff of Clatsop County consummated an illegal foreclosure sale of the John Jacob Astor Hotel to John Osburn et al. See enclosed letter to Board of Commissioners, County of Clatsop and the lead story in the Columbia Press of February 24, 1966 for complete details. ITEL has not and will not permit this flagrant miscarriage of justice to remain unreversed. Mr. Haines' and Mrs. Elisabeth Leding's civil rights to equal application of the laws of Oregon have been violated. ITEL will support any action that may be taken in federal court by these parties under the civil rights act. The two fraudulent deeds taken and given by the A.M.I. Corporation when that corporation did not then exist either under laws of Oregon and when John Osburn et al had defaulted by two days in paying the taxes within the period prescribed by law must also be reversed. Finally, the title of the State Land Board to the major part of the ground upon which the John Jacob Astor Hotel rests must be respected and the Common School Fund must be compensated.

The Duane Street ends of ITEL's Commercial Hotel property and the John Jacob Astor Hotel property is shoreland. The Commercial Street ends of both properties and part of Commercial Street itself is between the original high and low water marks. The low water mark was noted in the United States Supreme Court decision, Shively vs. Bowlby, which established or affirmed State Land Board title to tidelands. The 1872 decision noted low tide mark to be within Front Street, now Commercial Street.

Our predecessor in title to the Commercial Hotel property, Moses Rogers, purchased this tideland from the Land Board headed by Governor Grover. However, the Columbia Hotel Corporation that built the John Jacob Astor Hotel with community subscribed funds never obtained title nor did its predecessors.

Consequently, it is ITEL's riparian property rights under the 1963 law that have been infringed upon by the City of Astoria in misappropriating this land and issuing a deed for it to Columbia Navigation Company. These property rights are very valuable to our company and worth defending in court. We need these rights to permanently establish a tourist and industry-serving hydrofoil passenger vessel dock facility to provide attraction for an ultra-modern motel-hotel convention center.

The convention center will be built upon the site of the Commercial Hotel, upon its adjoining vacant lot and within the adjoining John Jacob Astor Hotel after the latter facility is virtually rebuilt inside and out. Our preliminary action to clear title to the John Jacob Astor Hotel is indicated in the enclosed letter to the Board of Commissioners, County of Clatsop.

You are hereby put on notice, therefore, that the title you are considering buying is as worthless as the title you gave the Columbia Navigation Company. We will find it necessary in our interest to contest any transfer of alleged title by the State Highway Commission to any party but the State Land Board and the passing of revenues to any but the Common School Fund or a local school district.

Our interests, however, are most compatible with the interests of the citizens of Astoria in providing adequate funds for better schools. Failure to provide sources of funds for schools based upon ability to pay often develops community antagonisms to industrial development which we with our development proposals hope to avoid. For example, taxes were as much as doubled for property owners from Knappa to Westport to provide adequate schools for the "bedroom towns" of the new industry at Wauna. Astoria, Warrenton, Gearhart and Seaside must now provide additional schools for the children of the construction workers and the permanent employees of Northwest Aluminum. Where will the funds come from? Higher home property taxes?

Foreseeing this problem Mr. Haines and my company have offered in our lease applications for lands in front of the John Jacob Astor and Commercial Hotels to assign a sublease for all of the new lands or all of the revenues therefrom to a local school district. This is in keeping with establishing the special claims of "bedroom towns" to a fair portion of the Common School Fund that is derived from tourism, commerce or industry for which such school districts are obligated to provide adequate schools. By separate letter, copy of which is enclosed, we have offered such a sublease or such revenues to the schools of the City of Astoria if our pending application is approved.

However, the largest and most immediate source of funds for schools in Astoria is the State Land Board's school lands which are being sold by the County of Clatsop to the Port of Astoria. The benefit of this transaction is solely for Northwest Aluminum. Besides being flagrantly illegal and jeopardizing the marketing of these and future revenue bonds, this transaction eliminates any special claim Astoria may have upon the Fund as a "bedroom" community bearing the greatest burden of providing the necessary schools.

All of the Skippanon Channel property belongs to the Land Board. Most of the property upon which the conveyor belt to the plant site will be built also belongs to the Land Board.

Northwest Aluminum is the second large industry to establish in Clatsop County. The two comprise a quarter of a billion dollars of investment, the two largest investments ever made in Oregon. However, they are far from being the last. Industry which demands the highest quality educated and skilled personnel needs schools, especially the colleges and universities capable of supporting industry.

Tremendous financial loads will be placed upon Astoria's school system. How can the City of Astoria afford to oppose the confirmation of Land Board titles to all new lands, submersible lands and submerged lands? How can the City of Astoria and its citizens do other than demand now as a precedent that a fair portion of state revenues to be obtained from over 100 square miles of Columbia River lands in Clatsop County go to Astoria's school fund?

Besides offering all of the revenue from new lands to local schools, my company has also sweetened its offer to the Land Board by agreeing to sell back its tideland and the improvements thereon for the same price as our predecessor in title paid for it, $8.85, in return for a long term lease. Consequently, the land and its improvements including a convention center will eventually revert to the Land Board and a future generation of children for their education. Perhaps the children of our children will enjoy the educational benefits of the revenues therefrom.

In order to remove all doubt that our company is acting in the public interest we make a further offer. If the State Highway Commission in cooperation with the State Land Board decides to keep the ferry facility and make it available for user fees to the public including commercial hydrofoil operators, and if the holders of the new lands pay rents to the Common School Fund or its local school district assignee in lieu of taxes to the City of Astoria, we shall withdraw our application and any litigation in the courts that may evolve from pursuing it.

Please consider this letter to you, therefore, a request to concede title without contest to the State Land Board upon all new lands claimed by the City of Astoria and also to concede all future tax revenue rights to the unimproved portion of new lands values. The City can and should, however, retain the tax rights upon the major portion of the value of the property which is the land improvements and personal property.

Our extensive studies indicate that the removal of the title clouds of misappropriation from over 100 square miles of new lands, submersible lands and submerged lands of the lower Columbia River in two states will kick off an unparalleled development of transportation and industry. Consequently, City tax revenues many times those tax revenues relinquished will accrue. The most important of these developments will be a "Columbia Freeport" land-bridge terminal facility for world commerce between Asia and America and Asia and Europe.

On the other hand, no act of legislature however well intentioned can establish a cut-off date for misappropriation of lands. It is extremely doubtful that the rights of my company could be jeopardized retroactively in any way by such proposed legislation. The same could be said for the property rights of school districts throughout the state for their portions of the Common School Fund indirectly misappropriated. The Supreme Court of the State of Oregon has held that indirect diversion from the Irreducible Common School Fund is unconstitutional. Diversion of the land itself, from which the revenues are derived, is established to be indirect diversion.

Consequently, the powers of the legislature are inadequate to approve misappropriation before an arbitrarily selected cutoff date. Such would require a constitutional amendment which would undoubtedly fail of enactment in view of the concern of Oregon citizens for the welfare of their schools.

Finally, and most important, the Supreme Court of Oregon in the case of Corvalis Sand and Gravel vs. the State Land Board has ruled that the failure of the Land Board to act to protect the Common School Fund for 96 years is no present barrier to the exercise of title to misappropriated lands now. The purpose of our applications to lease state lands is to make State Land Board executive action to protect the Common School Fund mandatory now.

Only executive action to protect and extend and develop the Common School Fund and the lands from which the fund is derived can clear the cloud over the titles to river and riverfront land. Clear titles are a prerequisite to investment in urban renewal and transportation and industrial development from Smith Point to Tongue Point.

The financing of a modern convention center of a market value of about $1,500,000 upon the city block in which the John Jacob Astor and the Commercial Hotels is located will be assured by five factors over which the City of Astoria has some measure of control:

1. Clearing of title to the J. J. Astor Hotel property. (See letter to Board of Commissioners, Clatsop County.)

2. Preserving of the liquor license being vacated by the A.M.I. Corporation for reestablishment in the same city block.

3. Permanent retention of the ferry landing facility for public commercial hydrofoil operations for tourists for several hundred miles up the Columbia River and also into Puget Sound, Canada and Alaska after construction of the proposed Columbia River to Puget Sound canal.

4. A reversal of City attitudes favoring "insiders" over "outsiders".

5. Minority participation in the convention center facility by local investors and local banks.

For the above reasons it is respectfully requested that the City of Astoria voluntarily relinquish all titles to state lands misappropriated by tax foreclosures or by simple appropriation. This could pave the way for the State Land Board to levy rents in lieu of city taxes on privately held lands. Only that portion of total taxable value represented by the underlying unimproved land itself need be relinquished.

No doubt forgiveness for past rentals due on private land and new grant titles to city street lands could be negotiated with the State Land Board in an out-of-court settlement in lieu of litigation. Settlement by litigation would inhibit City of Astoria development of its commerce, industry and tax revenues for years into the future.

Very truly yours,

Amos E. Heacock

Amos E. Heacock, President

INTERNATIONAL TRANSPORTATION
EQUIPMENT LESSORS, Inc.

cc: Oregon State Highway Department
Oregon State Land Board
Board of Commissioners, Clatsop County
Northwest Aluminum Company

Encl: Letter to State Highway Department
Letter to Board of Commissioners, Clatsop County

May 27, 1968

Board of Commissioners,
County of Clatsop,
County Courthouse,
Astoria, Oregon

Gentlemen:

You are hereby advised that an associate of my company, Mr. George Haines of Astoria has applied to the State Land Board to lease the property from the dike line to the pierhead line of the Columbia River on both sides of the Skippanon Channel.

The extensive research of Mr. Haines and this company has established beyond doubt that the County of Clatsop has no marketable title to the property it claims on the east side of the channel. This is as much as admitted by the County in applying for and receiving a lease for the east part of the waterway from the state. The same lack of title is true of the property on the west side of the channel claimed by the City of Warrenton. Therefore, the County has no title to sell to the Port of Astoria and the Port of Astoria has no title to lease to Northwest Aluminum Company.

Clatsop County has apparently claimed the property by tax foreclosure rights. However, the County has no right to tax nor to foreclose upon State Land Board title dedicated by, the Constitution of Oregon for the exclusive benefit of the common school fund.

The nominal title to this land was traced back through Clatsop County records to a deed issued to themselves in 1891 by the heirs of Adam Van Dusen and by Hiram Brown. Van Dusen and Brown were partners who took advantage of the tidelands act of 1872 to file upon state lands between the high and low tide lines. The law authorized the Land Board to sell this land for a minimum of $1.25 per acre.

However, Van Dusen and Brown filed in 1874 for 79 and 36/100 acres of tideland for which they paid only $1.00 per acre. The tidelands purchased were apparently within what is now the Tongue Point and Maritime Commission federal government properties. The deed from the Land Board headed by Governor Grover called for the tidelands abutting upon lots 1, 2, 3, 4 and 5, Section 2, also lots 1, 2,3, Section 11 and Lot 5 of Section 10, all in Township 8, Range 9 West, Willamette Meridian.

The self-serving deed of the heirs of Adam Van Dusen and Hiram Brown to themselves in which Brown was bought out for $2,000 was filed in 1891--many years later. The boundaries of the land deeded were set forth in longhand on one and one-half pages of the document.

Starting from a reference point on the meander line of the Columbia River west of Tongue Point near where the S.P. & S. railroad now emerges from Tongue Point the boundary line proceeded southerly to and 875 feet beyond the northeast corner of Section 10, Township 8 North, Range 9 West and thence easterly at right angles to the north-south boundary of Section 10 to the "ships' channel". This was a term used before there was an Army Engineers' pierhead line. However, since the present ships' channel is entirely to the north of Tongue Point the point east of Section 10 referred to in the deed must have been a channel ships used then.

Ignored, of course, by this self-serving deed was the fact that the 1872 law permitted claims only for lands as far as low tide mark and then only when the Irreducible Common School Fund was paid a minimum of $1.25 an acre. The original 79.36 acre claim of Van Dusen and Brown, however, grew to thousands of acres as the boundaries were extended in this deed.

From the river point east of Section 10 the boundaries extended north to an extension of the north boundary of the Stevens Donation Claim. (This claim includes Fort Stevens on the other side of Young's Bay!) The claimed land boundary extended west along the extension of the north boundary of the Stevens Donation Claim thence along the north boundary, thence along the west boundary of the Stevens Claim and west along the boundaries of other claims until the boundary headed north again to the Columbia River meander line. From thence, the meander line boundary proceeds upriver until such meander line became what is now the approximate location of the present dike line which is the southern boundary of the State Land Board lands applied for by Mr. Haines. From thence the meander line is the boundary line to the point of beginning--the point near where the S.P. & S. railroad emerges from Tongue Point. Of course, all underwater land and wharfage rights were claimed in this deed which includes the underwater land and wharfage rights to what is now the Skippanon Channel property.

Gentlemen of the Board of Commissioners, even if this fantastic deed was legally filed, comprising as it did a claim to tidelands and submerged lands from beyond Tongue Point in the east almost to the ocean in the west, the law permitting filing upon submerged lands was not enacted until 1963. Yet the Skippanon Channel lands that Mr. Haines has filed for and which the County claims by foreclosure are all riverward from the dike line. There are large acreages of original tidelands upland from the present dike line.

The predecessor in title for the alleged tax foreclosure title that the County seeks to market to the Port of Astoria is the title of this deed made to the heirs of Adam Van Dusen. Does the County want to defend this deed and the County's tax foreclosure in court, perhaps to the attorneys for Northwest Aluminum or for the underwriters that may market the revenue bonds? Is it still your policy to have the legislature affirm the stealing of the land that is the birthright of every Oregon child? If so, to what cut-off date? Which thefts are to be confirmed by the legislature and which are to

be rejected? How long is the Clatsop County machinery for the administration of justice to be subverted for the theft of land and property?

The State Land Board can accept Mr. Haines' application and call for competitive bids on the Skippanon Channel lands or it can reject his application on the theory that the legislature should legalize wholesale misappropriation of state lands. This misappropriation of state lands has occurred over most of the past 96 years of Land Board inaction to protect the Common School Fund. Last year the income for this fund was little over $40,000! Our company takes the position that further Land Board inaction is inappropriate to say the least, and that any legislative action to divert revenues from the Common School Fund is unconstitutional.

The County of Clatsop has more foreclosed land than any county in the state. Yet all this land has not made Clatsop County rich. Why? Commerce and industry will not invest large amounts in invalid or clouded land titles. Industry, however, is willing to pay substantial amounts of state lands rentals to support good schools, colleges and universities. The integrity of the County of Clatsop and the State of Oregon may be marketed along with $150,000,000 of revenue bonds if Clatsop County sells land it does not own to the Port of Astoria and the Port of Astoria sells it to the bondholders.

The New York bond market is a very conservative group of underwriters. It is doubtful if any Clatsop County bonds can be marketed if the market is stung with invalid titles. Our company would also suffer because we have laid plans for six years to participate in the booming development of Clatsop County we have forecast. Consequently, we must take legal action if necessary to prevent the drying up of credit for industrial development in the County.

The Board of Commissioners of Clatsop County were put on notice once before, on Monday, February 21, 1966 by a letter I read to the Commissioners, that the actions of the County Sheriff and the County District Attorney were highly illegal in the foreclosure action against George Haines and Ocean Investment Company for the John Jacob Astor Hotel property. A full account of this notice appeared in the Columbia Press of February 24, 1966. You chose to ignore this petition for relief from County maladministration of justice.

The Sheriff's deed in that foreclosure action used the peculiar language after the legal description of the real property "and all the personal property located thereon" with certain exceptions noted including the bar liquor and the tenants' personal property. However, even the bar liquor was seized and sold at a cut rate to the "buyer" who paid the Sheriff only his costs of $128.30.

The language on the Sheriff's deed led Mr. Haines to undertake extensive research into the historical background of the deed's requirement for "all the personal property located thereon". It appears that many of the waterfront properties in the County were built partially or entirely upon state lands. Since the County had acknowledged rights to foreclose upon the personal property improvements, but not upon the state lands, and, of course, the personal property improvements were not marketable

without a land deed, the County began issuing its own deeds to state lands.

Fortunes were made by "insiders" in buying up these titles at tax sales. The buyers thereupon gained "innocent" title inasmuch as the spurious deed documents were issued by the Sheriff, supposedly without the buyers' knowledge. This accounts for the large quantity of crocodile tears shed for the plight of the innocent titleholders at the hearing in the Astoria City Hall before the legislature's Interim Committee on Public Lands.

However, it is clear that Clatsop County itself cannot plead acquisition of innocent title. Clatsop County recorded all the deeds with or without a valid predecessor in title, accepted phony deeds like the one issued by the heirs of Adam Van Dusen, and issued the new deeds to lands belonging to the state in spite of the U. S. Supreme Court decision of Shively vs. Bowlby.

Time is running out for Clatsop County Commissioners or their constituents to do the honorable thing. Clatsop County should renounce title to misappropriated lands and all tax revenues from private lands belonging to the state. The same reasons apply and the same claims should be made for a fair portion of the rental revenues going from Clatsop County to the Common School Fund as was recommended to the City of Astoria. See enclosed letter to the City Council, City of Astoria.

There is an old jingle that says, as close as I can remember it:

> "Who steals the goose from the village common is <u>always</u> punished but who steals the common from the goose--never!"

Never is a long time although the lands have been stolen from the common school fund for 96 years. We insist that it takes executive action to stop it--not legislative action to confirm it!

Yours is the ultimate responsibility for the integrity of the titles recorded by the Clerk of Clatsop County. You cannot further ignore the flagrant and willful stealing of property from the Land Board and from others which is condoned, legalized and participated in by the County.

Just this month a sale of a parcel of state land, much of which is under water, was advertised by the County. The advertisement indicated a bid had been made for $21,500. This is an amount that is about half the income last year for all tidelands contributing to the common school fund! The sale was called off after the protest of Mr. Haines and myself to the staff of the Land Board.

However, apparently this reflected only a County decision to lay low while the heat was on for the sale, we understand, is now rescheduled for June. Do you really believe that an application to the state legislature to legalize these wholesale land steals justifies their continued execution pending favorable action by the legislature? Can you justify your action and your inaction under the law or to your constituents?

By enclosed copy of my letter to the State Highway Department the state is advised that the County sold it land for the Highway 101 cutoff across Young's Bay although the title to this land rests with the Land Board. A constitutionally illegal indirect diversion from the Irreducible Common School Fund has here been participated in by both the County of Clatsop and the State Highway Department.

Your government does not stand the first test of government if it protects the strong and the many from the weak and the few. Jungle law itself does that. You are put on notice again, therefore, by this letter that flagrant discrimination under the color of law occurred in Clatsop County's misuse of the powers of the Sheriff and the District Attorney in the illegal sale and the illegal misappropriation of property in the John Jacob Astor Hotel case. The victims were Ocean Investment Company, George Haines, Mrs. Elisabeth Loding, and International Transportation Equipment Lessors, Inc.

You are further put on notice by Ocean Investment Company and by my company that two invalid deeds have been issued subsequent to the invalid Sheriff's deed. These were the deeds issued by John Osburn to A.M.I. Corporation and by A.M.I. Corporation to Fisher's Realty Company two days after the hotel property reverted to the County for non-payment of taxes. These deeds are invalid for four reasons:

(1) The statutory time limit for the payment of taxes was exceeded by two days. Under the law, if it is administered equitably for all parties, the property was forfeited to the County.

(2) The A.M.I. Corporation did not exist as a corporation under the laws of Oregon when the deeds were executed. A.M.I. incorporated under the laws of Oregon subsequent to these deed transactions.

(3) The Sheriff's deed to John Osburn et al was invalid as the sale and the foreclosure was not carried out pursuant to the Court Order and Decree of Foreclosure.

(4) All deeds are invalid as the land deeded, with the exception of the Duane Street river bank end of the property belongs to the State Land Board.

The major part of the hotel property was and is tidelands converted to new lands, was never purchased from the State Land Board and no compensation went to the Irreducible Common School Fund. Mr. Haines has filed application to lease this land from the Land Board. When acquired, it will be added to the property occupied by the Commercial Hotel and developed into a modern motel-hotel convention center.

While Mr. George Haines, President of Ocean Investment Company, a California corporation, makes his own decisions with regard to legal actions, some of which my company disapproves of, this company must and will support any action he may find necessary to undertake in order to reverse the discrimination against him and Mrs. Leding practiced under the color of law by officials of Clatsop County and the local judiciary. Under my company's contract for purchase of Ocean Investment's rights-in-litigation to the John Jacob Astor Hotel we could hardly do otherwise, unless such litigation becomes unnecessary through voluntary action of the Board of Commissioners of Clatsop County.

This appeal is made, therefore, to the sense of justice of the Board of Commissioners and their constituents, so that prolonged and perhaps bitter litigation may be avoided. The primary purpose of our company is to aid the promotion and development of transportation and industry in Clatsop County for the ultimate benefit of Clatsop County as well as ourselves. We do not seek litigation. Litigation can inhibit development. But litigate we will if we must to secure the justice that we as well as the present and future children of Oregon are guaranteed by the Constitution of the United States.

Mr. Haines is now in California. He will be there for several weeks. He will be working with the California attorneys for Ocean Investment to prepare legal action to reverse the discrimination under the color of law that resulted in the loss of his lifetime savings of over $130,000 and a widow's loss of half ownership of the John Jacob Astor Hotel left her by her husband. As an independent partner in this enterprise to return the hotel to its rightful owners for development, however, my company is making its last appeal to the County for voluntary action to reverse the discrimination inherent in the County's administration of justice. Neither Mr. Haines nor I will seek our remedies in the courts of Oregon. Mr. Haines and Mrs. Leding sought justice in and exhausted their remedies in the courts of Oregon. The result was negative.

The maladministration of justice experienced in Clatsop County includes the subversion of one of the most sacred safeguards of democratic government—the grand jury system. The appointed prosecutor who allegedly investigated maladministration of justice in Clatsop County failed and refused to present to the Grand Jury the evidence of record in the foreclosure case of violations of the criminal code.

When the evidence was withdrawn from Clatsop County Courthouse records and photographed for presentation to the grand jury by Mr. Haines in lieu of the prosecutor, the investigation was rushed to a conclusion and a whitewash report drawn up by the prosecutor, approved by the Court that appointed the prosecutor, and rushed to the local press for publication. Mr. Haines was only away from Astoria a weekend and one working day to get my help in preparing the evidence for presentation to the grand jury. He had the prosecutor's assurance that the next grand jury session would not be earlier than Wednesday and that Haines would be notified. Although the grand jury was taking witnesses' testimony on Monday evening the report of considerable length was drawn up by the prosecutor, approved by the grand jury, approved by the judge, and in the hands of the press by noon Tuesday. The prosecutor was a friend and political associate of the principal accused.

Mr. Haines made an appeal to the grand jury and the grand jury heeded the appeal and officially requested the Governor of the State of Oregon to permit the Attorney General, elected by all the people of Oregon, to participate in the investigation. The governor refused the grand jury's request and expressed his personal confidence in the prosecutor.

Since Mr. Haines has appealed without success to the highest court in Oregon, to a grand jury, and to the governor of this state he feels the federal courts are his last resort for justice. He feels that a system of maladministration of justice was set up in Clatsop County to protect extensive land steals, the principal victim of which has been the Common School Fund constitutionally dedicated to the education of all Oregon schoolchildren, present and future.

Mr. Haines left Oregon for California dissatisfied with the lack of immediate action by the Land Board and by the treatment he has received from the County of Clatsop and the City of Astoria. However, I refuse to believe that the officials of the City, the County and the State or their constituents will ignore a last-resort appeal for voluntary progress toward justice for the public and private victims of land and property frauds in Clatsop County.

Although Mr. Haines has several alternatives available to him for redress in federal courts, I believe that the one he may rely upon at least in part could also inhibit industrial and tourist development in Clatsop County for years beyond any litigation. The effect would be to give to the rest of the United States the impression that Astoria, Clatsop County and Oregon officials and the electorate have no interest in voluntarily correcting maladministration of justice. I cannot believe that this would be a fair impression but I am sure it would inhibit industrial and tourist development in Clatsop County. My company has a heavy stake in that development. For that reason, I am appealing to you for voluntary action to aid in redressing the several grievances and financial losses that Mr. Haines hopes to correct in federal court.

The Civil Rights Act is believed by Mr. Haines to cover the discrimination he and others have suffered under the administration of justice of Clatsop County. As can be gathered from the following excerpt from the law, discrimination resulting from the color of one's skin is not the only discrimination prohibited by the law:

"SUBCHAPTER I

"Par. 1983. Civil action for deprivation of rights

"Every person who, under color of any statute, ordinance, regulation, custom, or useage, of any State or Territory, subjects, or causes to be subjected, any citizen of the United States or other person within the jurisdiction thereof to the deprivation of any rights, privileges, or immunities secured by the Constitution and laws, shall be liable to the party injured in an action at law, suit in equity, or other proper proceeding for redress. RS. Par. 1979

"Par. 1985. Conspiracy to interfere with civil rights--Depriving persons of rights or privileges. * * *

"(3) If two or more persons in any State or Territory conspire * * * for the purpose of depriving, either directly or indirectly, any person or class of persons of the equal protection of the laws, or of equal privileges or immunities under the laws; or for the purpose of preventing or hindering the constituted authorities of any State or Territory from giving or securing to all persons within such State or Territory the equal protection of the laws; * * *; in any case of conspiracy set forth in this section, if one or more persons engaged therein do, or cause to be done, any act in furtherance of the object of such conspiracy, whereby another is injured in his person or property, or deprived of having and exercising any right or privilege of a citizen of the United States, the party so injured or deprived may have an action for the recovery of damages, occasioned by such injury or deprivation, against any one or more of the conspirators. R.S. Par. 1980."

Please consider this letter, therefore, a request for action by the Board of Commissioners, County of Clatsop, to:

1. Voluntarily relinquish title to all State Land Board lands for which the County holds nominal title, after negotiations with the Board to assure that a fair proportion of the Common School Fund derived from state lands in Clatsop County is assigned to County schools for supporting the school requirements of transportation and industry development in the County.

2. Voluntarily relinquish tax revenues on all State Land Board lands for which private citizens hold nominal title after negotiations with the Board to assure that past rents are forgiven and future land rentals on long term leases will be equal to or less than the County taxes relinquished.

3. Voluntarily investigate the title to the John Jacob Astor Hotel property and cancel and expunge from Clatsop County deed records any deeds found to be invalid.

Very truly yours,

INTERNATIONAL TRANSPORTATION
EQUIPMENT LESSORS, Inc.

Amos E. Peacock, President

cc: Oregon State Highway Department
Oregon State Land Board
City Council, City of Astoria
Northwest Aluminum Company

Encl: Letter to State Highway Department
Letter to City Council, City of Astoria

RECEIVED
MAY 29 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 29 1968
OREGON
STATE HIGHWAY COMMISSION

RECEIVED
JUN 18 1968
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 6, 1968

SUBJECT: File 12566
Astoria Ferry
Oregon Coast Highway

To: Mr. W. H. Maskin
Property Manager

B U I L D I N G

Reference is made to the proposed sale of the property on the above mentioned file. This is the ferry slip lying between 14th and 15th Streets in Astoria.

It is the recommendation of this office and approved by Mr. Klaboe that the property be sold in accordance with the recommendations set forth in my letter of May 31 to Mr. Klaboe, which is attached hereto.

F. D. Morgan
Construction Engineer

HAP:fr

Attach.

cc: E. B. Klaboe
R. D. Abernethy
R. S. Hunter
R. M. Smith

NOTED
E. B. KLABOE

RECEIVED
JUN 6 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 6 - 1968
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 31, 1968

File 12566
SUBJECT: Astoria Ferry - Clatsop County
Oregon Coast Highway

To:
Mr. F. B. Klaboe
Assistant State Highway Engineer
Building

Herewith correspondence on the subject file. This is the ferry slip lying between 14th and 15th Streets.

The Division recommends sale with the purchaser being responsible for ramps, dolphins, navigational aids and other appurtenances on the property. Urban Design concurs with the addition of a junkyard clause. Landscape, Maintenance and Location concur or are not interested. Parks suggests that maybe the city of Astoria could make a small urban beautification area out of it.

It is recommended the ferry slip be sold as outlined by the Division and Urban Design, and the city of Astoria be given first chance at purchase.

NOTED
TOM EDWARDS

file until to
Morgan
copies to
Mocking
files
6-5-68

F.D. Morgan
Construction Engineer

DNS:jp
Attach
cc: W.H. Haskin

Approved 6/5/68
Asst. State Hwy. Engr.

RECEIVED
JUN 3 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 5 - 1968
FOR FILE
8949

April 5, 1968

Mr. H. F. Moy, Chief Engineer
Spokane, Portland & Seattle Railway Company
1101 N. W. Hoyt Street
Portland, Oregon 97207

Dear Mr. Moy:

During a meeting in Mr. Cooper's office a few days ago, you requested that we send you a copy of our plan and profile for the Astoria-Camp Rilea Section of the Oregon Coast Highway. These are enclosed.

You will note that there are no grade separations proposed at this time. The crossing of the railroad was proposed to be at grade. In view of the information received last week, we will reexamine this before we finalize them.

With reference to the crossing of the Skipanon River, our proposal was for a fixed structure and not a movable span.

If we can be of any further assistance, please advise.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

cc: Forrest Cooper
R. L. Porter
Tom Edwards
F. D. Morgan
R. D. Asburry

(S. Unit, Astoria-Camp Rilea Sec., Oregon Coast Highway, Sheets 3-8 inclusive)
Encs.

RECEIVED
MAR 27 1968

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
FRED W. HILL, MEMBER
HELIX

-8949

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

Assignment FBK 2238

March 6, 1968

2238

Carl E. Green & Associates
Consulting Engineers and Planners
1730 S.W. Skyline Boulevard
Portland, Oregon 97221

Attention Mr. Carl E. Green

Gentlemen:

Concerning your inquiry of February 29, 1968, about our plans in connection with a proposed Warrenton water line Camp Rilea to Gearhart, we are enclosing Sheets 6, 7 and 8 of our preliminary plans for the South Unit, Astoria-Camp Rilea Section. The project remains tentative but the sheets may represent later information than sent previously.

South to Gearhart is another matter. We have no plans or time schedule. Our records indicate construction may go back to 1921 and the data unreliable. We are enclosing two prints of the right of way map, however, for what it may be worth.

Consultation with R. M. Smith, District Maintenance Superintendent, P. O. Box 686, Astoria, 97103, is recommended for maintenance work that may be contemplated, his interpretation of the right of way, etc. In the event a permit is required for encroachment on the right of way, it should originate in his office.

Very truly yours,

F. D. Morgan
Construction Engineer

By
J. R. Mereleck
Chief Locating Engineer

JRMmm

Enc.

bc: F. B. Klaboe
V. D. Wolfe
R. D. Asburry
R. M. Smith

RECEIVED
MAR - 8 1968
OFFICE OF
STATE HIGHWAY ENGR.

CARL E. GREEN & ASSOCIATES
Consulting Engineers and Planners

1730 S.W. SKYLINE BLVD., PORTLAND, OREGON 97221
292-9254

Routing

Morgan ///
Decker
Bond
Barbee
Walker
Glenn
Swan

Pease
Morelock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
MAR 1 1968
CONSTRUCTION
DIVISION

102

February 29, 1968

State Highway Department
State Highway Dept. Bldg.
Salem, Oregon

Att: Fred Klaboe, Asst. State Highway Engr.

Re: City of Warrenton Water Supply Line

Gentlemen:

The City of Warrenton expects to install a new water supply main along Highway 101 from Warrenton south to Gearhart during the summer and fall seasons of this year.

Some time ago, I received from you a copy of the then tentative plans for the reconstruction which begins north of Camp Rilea. If either preliminary or final plans have been prepared for the work southerly, I would appreciate receiving a copy of the plan and profile sheets at your earliest convenience. If such plans are not yet available, I would appreciate receiving a copy of plans of the existing Highway 101 in the area mentioned above. If plans have not yet been prepared for reconstruction or relocation and you can forecast when such work may be undertaken, it would be helpful to us in our planning.

Very truly yours,

CARL E. GREEN & ASSOCIATES

By Carl E. Green
Carl E. Green

CEG:er

cc E. R. Baldwin, City Mgr.

RECEIVED
MAR - 1 1968
OFFICE OF
STATE HIGHWAY ENGINEER

FORM E-122X. 10M 6-67
RECEIVED
COMMISSIONERS
GLENN JACKSON, CHAIRMAN
MEDFORD
DAVID B. SIMPSON, MEMBER
PORTLAND
HELIX
8949

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

December 21, 1967

Carl Green & Associates
1720 S. W. Skyline Blvd.
Portland, Oregon 97221

RE: Uncontrolled Access
South Unit, Astoria-Camp Kilne Section
Oregon Coast Highway
Clatsop County

Gentlemen:

NOTED
F. B. KLABOE

In your letter to Mr. Fred Klaboe, Assistant State Highway Engineer, dated November 8, 1966, you requested a copy of our permanent plans of the proposed four-lane improvement of this section of the Oregon Coast Highway.

Attached hereto you will find an uncontrolled access print on which have been projected two alternate routes of our proposed relocation through this area. At this moment, there is some doubt as to which alignment will be constructed, but when this is determined and construction plans are available, they will be forwarded to you as requested.

Very truly yours,

F. D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

TWL:ss:fw
Enc.
bc: F. B. Klaboe - w/copy of Green's letter
L. H. Young " " " "
R. D. Asburry " " " "

RECEIVED
DEC 21 1967
OFFICE OF
STATE HIGHWAY ENGINEER

GREEN, MEYER AND KLEIN ENGINEERS, INC.
SUCCESSORS TO: CARL E. GREEN & ASSOCIATES AND ROBERT E. MEYER, CONSULTING ENGINEER
1745 S. W. ALLEN AVENUE • BEAVERTON, OREGON 97005
AREA CODE 503 646-3193

November 8, 1966

Routing

Morgan
Decker
Bond
Barbee
Walker
Glenn
Swan

Peaso
Morelock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
NOV 14 1966
CONSTRUCTION DIVISION

Mr. Fred Klaboe
Assistant State Highway Engineer
State of Oregon
State Highway Department
Salem, Oregon 97310

Dear Fred:

I appreciate the time which you gave me yesterday in connection with our work in the Warrenton Area and since conferring with Bill Hill, I found that certain data was available in Mr. Yarbrough's office and I expect to obtain this information from him. Mr. Hill advised that no borings have yet been made in connection with the bridge construction at the Camp Rilea - Youngs Bay section of 101.

By the time I completed my work with the Water Resources Board I was pressed for time for an appointment in Newberg; hence, I did not return to your office but I did obtain the soils information. Later, when you have permanent plans of the proposed four lane improvement of 101 I would appreciate receiving a copy.

T. W. Litchfield:
Please comply at the proper time.
L. N. V.

Very truly yours,

GREEN, MEYER AND KLEIN
ENGINEERS, INC.

Carl E. Green

By: Carl E. Green

CEG:sf

RECEIVED
NOV 10 1966
OFFICE ENGINEERING DIVISION

RECEIVED
NOV 9 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
NOV 9 - 1966
OREGON
STATE HIGHWAY COMMISSION

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Page 1 of Pages

Section S. UNIT ASTORIA - CAMP RILEA Highway OREGON COAST (FAR 2) County CLATSOP

Res. Engr. L.A. Weber Approx. Length 2.9± Miles. Sta. 168± to S.a. 220±

Prefix 4-1454 = 87 Date 5-15-67

Truck A.D.T. 472 Traffic Coefficient 9.7 18 kip s.a. per day 274.8.

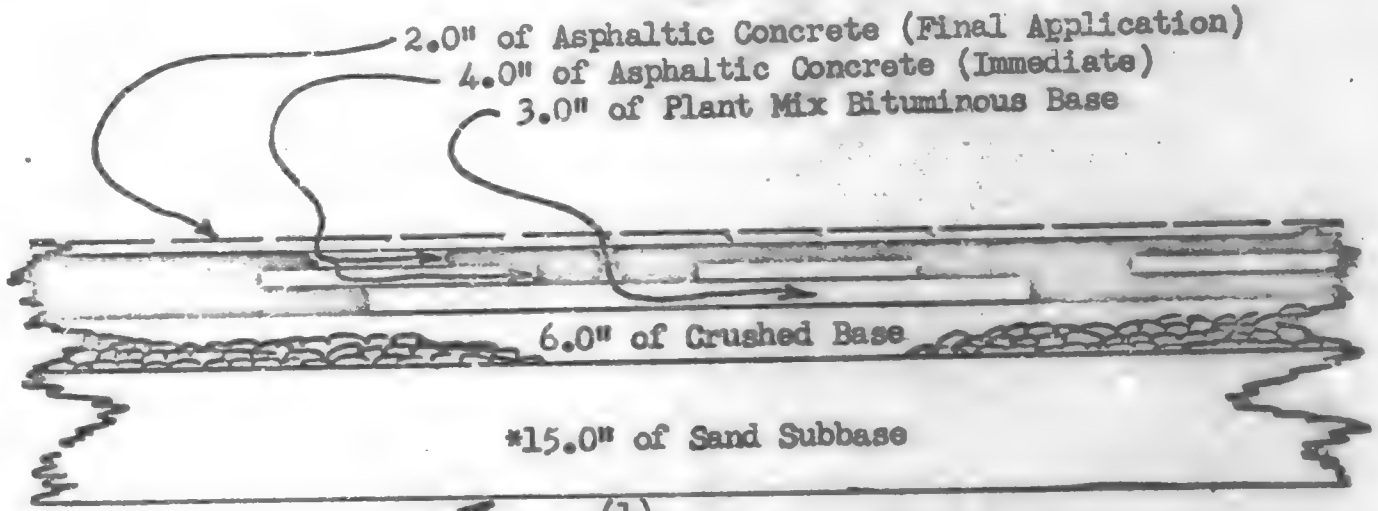
Annual Precipitation 71"± (Seaside) Frost Penetration ---------.

(1)
Typical Soil
59 LL
19 PI
100 %P 10
72 %P200
0 %Gravel
10 %C Sand
18 %F Sand
39 %Silt
33 %Clay
10 "R" Value

AASHO CLASSIFICATION:
A-7-5 (14)

MATERIAL SOURCES:
To be determined by the Engineer.

NEW WORK


2.0" of Asphaltic Concrete (Final Application)
4.0" of Asphaltic Concrete (Immediate)
3.0" of Plant Mix Bituminous Base
6.0" of Crushed Base
*15.0" of Sand Subbase
(1)
Silty Clay

CBE Total Req.	Credit	Actual Thick.	
	4.0	2.0	A.C. (F)
	8.0	4.0	A.C. (I)
	5.5	3.0	P.M.B.B.
	6.0	6.0	Cr. Base
	7.5	15.0	*Sand Subbase
31.0	31.0	30.0	

*Delete that part of Article 201-2.2 pertaining to the fine material passing the ¼" sieve.

NOTED
F. P. KIABOE

cc:
B.P.R.
Asst. State Highway Engineer
Construction Engineer
Engineer of Materials
Division Engineer
Resident Engineer
Office Engineer
Design Engineer
Division Geologist
[redacted]
Rural Engineer

Submitted by C. O. [illegible]
for Staff Assistant

Recommended by L. A. Weber
Asst Construction Engineer

Recommended by [illegible]
Asst Engineer of Materials

Approved by [illegible]
Asst. State Highway Engineer

5-15-67

OREGON STATE HIGHWAY DEPARTMENT
CONSTRUCTION DIVISION
SOILS AND GEOLOGY SECTION
PROJECT BASE DESIGN

Section S. UNIT ASTORIA - CAMP RILEA Highway OREGON COAST (FAR 2) County CLATSOP Prefix 4-1454

Res. Engr. L.A. Weber Approx. Length 2.9+ Miles. Sta. 168+ to Sta. 220+ Date 5-15-67

Truck A.D.T. 472 Traffic Coefficient 9.7 18 kip s.a. per day 274.8.

Annual Precipitation 71"+ (Seaside) Frost Penetration - - - - - - - - -.

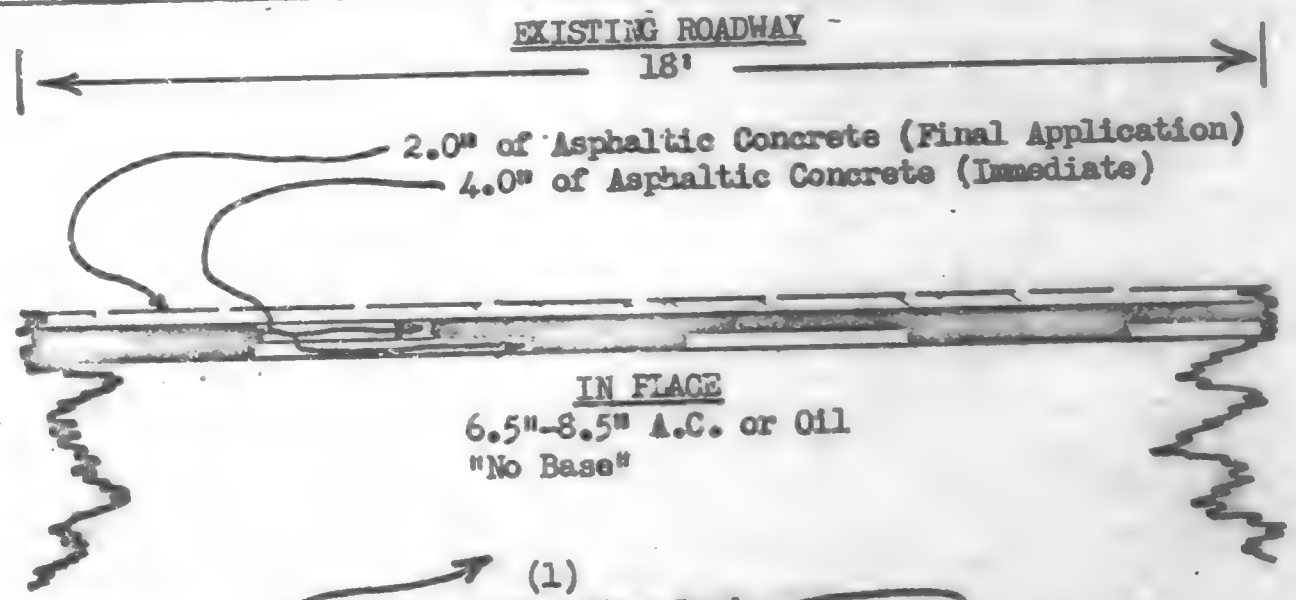
(1)
Typical Soil
27 LL
0 PI
99 %P 10
17 %P200
1 %Gravel
1 %C Sand
81 %F Sand
13 %Silt
4 %Clay
41 "R" Value
[redacted]

AASHO CLASSIFICATION:

A-2-4

MATERIAL SOURCES:

To be determined by the Engineer.



Four holes were drilled to check thickness of existing A.C. See remarks on Page 3 for salvage recommendations.

CBE Total Req.	Credit	Actual Thick.	
	4.0	2.0	A.C. (F)
	8.0	4.0	A.C. (I)
	IN PLACE		
	13.5	7.5	A.C.
	25.5	13.5	

S. UNIT ASTORIA - CAMP RILEA
Oregon Coast Highway #9 (FAR 2)
Clatsop County

"OTHER ROADS"

Truck ADT	A.C. Wearing Surface	P.M.B.B.	3/4"-0 Level	Crushed Base	Minimum Sand Subbase	"CBE" Total Requirement	Actual Thickness
90 - 240	3.5"	3.0"	- - -	6.0"	17.0"	27.0"	29.5"
30 - 90	3.5"	- - -	2.0"	6.0"	18.0"	24.0"	29.5"
8 - 30	3.0"	- - -	2.0"	6.0"	14.0"	21.0"	25.0"
1 - 8	2.0"	- - -	2.0"	6.0"	11.0"	17.5"	21.0"
Cars Only	2.0"	- - -	2.0"	4.0"	6.0"	13.0"	14.0"

Should substitutions be made use the "CBE" COLUMN to obtain the "TOTAL THICKNESS REQUIRED" and the table below for values:

"NEW WORK"

1.0"	Asphaltic Concrete	=	2.0" Crushed Base
1.0"	Plant Mix Bituminous Base	=	1.8" Crushed Base
1.0"	Oil Mat	=	1.1" Crushed Base
1.0"	Sand Subbase	=	0.5" Crushed Base

"EXISTING MATERIALS"

1.0"	Asphaltic Concrete or Oil	=	1.8" Crushed Base

"EXISTING ROADWAY"

The present roadway generally will be incorporated into the new work as part of the median or a left turn refuge; and will not be exposed to use by the heavy thru traffic. The recommendation to salvage an 18' center width with a minimum 4.0" A.C. overlay is based on the above traffic assumption.

SECTION: S. UNIT ASTORIA - CAMP RILEA

HIGHWAY: OREGON COAST (FAR 2)

COUNTY: Clatsop

Traffic Analysis:

Calculation for Traffic Coefficient

Loadometer Study For Year _____

A. 1965 Present ADT 5400 (Total)

B. 1985 Future ADT 6400 (Total)

C. Mean ADT 4900 $\left(\frac{A+B}{2}\right)$

D. Design Period 20 Years

E. No. of Lanes 4

F. Percent Trucks 16 (ADT Basis)

G. Trucks (in one direction) $\frac{F}{2}$ = .08 x (C) $\frac{\text{Logging Trucks}}{\text{Total}}$ $\frac{4900}{472}$ = $\frac{80}{392}$ = 472

H. % Trucks in Design Lane 100 %

I. Trucks in Design Lane (G) 472 x (H) 100 % = 472

TRAFFIC COEFFICIENT = K (I) $^{0.119}$

where K = 4.669

= 9.7

SECTION: S. UNIT, ASTORIA - CAMP RILEA

HIGHWAY: OREGON COAST (FAR 2)

COUNTY: Clatsop

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: See attached sheet
2. Soils Characteristics: See design chart attached
3. Weather: See design chart attached
4. Performance of Similar Pavements in Area: Good X Fair _____ Poor _____
   Remarks: _____
5. Cost Comparisons: See remarks

Secondary Factors Governing Selection

6. Adjacent Existing Pavements: A.C. or Oil
7. Stage Construction: Part of design
8. Depressed, Surface, or Elevated Design: Surface
9. Conservation of Aggregates: See remarks
10. Stimulation of Competition: See remarks
11. Construction Consideration: See remarks
12. Municipal Preference, Participating Local Government Preference, and Recognition of Local Industry: Not applicable
13. Traffic Safety: See remarks
14. Availability of an Adaption of Local Materials or of Local Commercially Produced Paving Mixes: Local materials are adaptable to this type construction.

CONCLUSION AND REMARKS:

No cost comparison made as a portion of the existing roadway will be utilized, and A.C. is more desirable for this type construction.

3949

RECEIVED
MAR 21 1967
FOR FILING

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
Portland
KENNETH N. FRIDLEY, MEMBER
Wasco
DAVID B. SIMPSON, MEMBER
Portland
FLOYD QUERY, SECRETARY
Salem

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
5821 Northeast Glisan Street
Portland, Oregon 97213

March 20, 1967

FORREST COOPER
STATE HIGHWAY ENGINEER
R. L. PORTER
DEPUTY STATE HWY. ENGR.
G. E. ROHDE
CHIEF COUNSEL

RECEIVED
MAR 21 1967

Pacific Power & Light Company
Public Service Building
Portland, Oregon

Attention Mr. R. M. Dyles
Property Transfer Supervisor

File No. 35A23 - P. P. & L.
Astoria - Camp Rilea Section
Oregon Coast Highway
Clatsop County

Dear Mr. Dyles:

This is a further reply to your letter of February 27 regarding our acquisition on the Oregon Coast Highway.

After consideration of your request by our Division Engineer, please be advised that we cannot at this time include a reservation for a railroad spur crossing as requested by you. Since we have no definite information as to your requirements for conveyor systems under highway installation, we cannot grant any reservations.

Other than the access reservation at Station 192+00, we cannot at this time consider our acquisition in any other way. If, in the future, you have any definite proposals to make, please present them in writing for consideration. I am sure that you understand that any provision for conveyors under highway facilities must be incorporated in our construction plans prior to the letting of a contract. At the present time this prospect is not programmed for construction but may be placed in this category in the near future.

Very truly yours,

J. J. SMITH
DISTRICT RIGHT OF WAY
SUPERVISOR

JJS:cm
cc: F. B. Klaboe
D. J. Barbee
D. M. Hockring
R. B. Asbury

NOTED
E.B.MABOE

RECEIVED
MAR 21 1967
OFFICE OF
STATE HIGHWAY ENGINEER

MAR 16 1967

FORM E-20S—50M—7-66

FOR FILES

6949

SP 23657-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
March 13, 1967

SUBJECT: File 35423 - P.P. & L.
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

To: Mr. J. J. Smith
Right of Way Supervisor
Oregon State Highway Department
5821 N. E. Glisan Street
Portland, Oregon 97213

NOTED F.B. KLABOE

In reply to your letter of February 28, 1967, regarding proposed reservations by the grantors on the subject right of way transaction, I do not believe these should be included in the deed for our right of way.

As for the railroad spur crossing at grade, this definitely should not be included in the deed. At the present time, one is not justified. It might be that sometime in the future the "powers that be" might see fit to grant this but it would have to be under a special agreement with proper justification and adequate plans showing all aspects pertaining to it.

As for overhead or underground conveyor system for pipe lines, there again we have no definite information as to what will be needed. It is customary that permits be given for underground pipes at locations compatible with both parties concerned. As for overhead facilities, definite plans or proposals would have to be presented and completely analyzed before any decision could be made regarding them.

In summary, I believe, with the exception of the access reservation at Station 192+00, all other encumbrances should be omitted from the right of way transaction and the owners dealt with accordingly.

R. D. Asbury

R. D. Asbury
Division Engineer

RDA:cm
cc F. B. Klaboe
D. J. Barbee
D. M. Moehring

FORM S-133

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND
FLOYD QUERY, SECRETARY
SALEM

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
5821 Northeast Glisan Street
Portland, Oregon 97213

FORREST COOPER
STATE HIGHWAY ENGINEER
R. L. PORTER
DEPUTY STATE HWY. ENGR.
G. E. ROHDE
CHIEF COUNSEL

February 28, 1967

Pacific Power & Light Company
Public Service Building
Portland 4, Oregon

File No. 35423 - P. P. & L.
South Unit, Astoria -
Camp Rilea Section
Oregon Coast Highway
Clatsop County

Your File: FD-11-OR-40

ATTENTION: Mr. E. M. Byles
Property Transfer Supervisor

Dear Mr. Byles:

We have your letter of February 27, 1967, referring to the above file. As has been explained to you, this is a controlled access highway. Its primary purpose is to facilitate the safe and rapid movement of motor vehicles. It is intended to replace and realign the present highway which is inadequate in these two respects. A reservation for an at grade railroad spur would tend to nullify the objective of this realignment.

Your request for overhead or underground crossings is being forwarded to our Division Engineer for consideration. Just as a matter of observation, it would appear to me that an underground crossing in this area would be impractical because of a high ground water level. If your future construction would require underground pipelines, there would appear to be little reason to doubt that this could not be accomplished provided you can give us the location of the pipelines at the time of our construction.

When the feasibility of these facilities has been passed upon by our Division Engineer, we will communicate with you.

Very truly yours,

J. J. SMITH
DISTRICT RIGHT OF WAY
SUPERVISOR

JJS:jr

cc: Mr. D. H. Moehring
Mr. R. D. Asburry

RECEIVED
MAR 1 1967
OFFICE OF
DIVISION ENGINEER
DIVISION NO. 2

PACIFIC POWER & LIGHT COMPANY

PUBLIC SERVICE BUILDING

PORTLAND 4, OREGON

February 27, 1967

In Reply Please Refer
To: PD-11-OR-40

Re: Your file No. 35423
Oregon Coast Highway

Mr. E. W. Smedberg
Right of Way Agent
State Highway Department
5821 N. E. Glisan Street
Portland, Oregon 97213

Dear Mr. Smedberg:

This is in reference to your letter of November 7, 1966 outlining the State's proposed acquisition of land within our Warrenton Industrial site for the relocated Astoria-Camp Rilea section of the Oregon Coast Highway.

As discussed between you and Messrs. Sallee and Bach of this office, and as previously discussed with Mr. Klaboe of the Highway Department, Pacific Power & Light Company acquired this large tract of land for a potential industrial site, as part of our continuing efforts to aid the economy of the Clatsop County area. We appreciate the value of a modern highway to such a development, but the proposed location of your highway will effectively cut the tract into two distinct and somewhat isolated parcels.

In view of this, we would appreciate your giving consideration to allowing us to reserve rights for at grade railroad spurs, overhead or underground conveyor systems or pipelines, and overhead or underground vehicular and pedestrian crossings in addition to the access reservations at Station 192+00 which you have proposed. If you would like to discuss this aspect of the transaction further, please advise us and we will make arrangements for a meeting.

With respect to the option agreement you transmitted with your letter of November 7, we must advise you that such an option could only be granted subject to approval by our Board of Directors, and subject to release of this property from the lien of our Company's mortgage and deed of trust. We suggest that rather than execute the option subject to such conditions at this time, we will submit this matter to our Board of Directors at the next regular meeting (scheduled for March 1967). If the Board approves of the transaction at that time, we will then be in a position to execute the option or offer you a deed to the parcels you require for the highway.

Very truly yours,

E. M. Byles
Property Transfer Supervisor

EMB:me

RECEIVED
FEB 28 1967
METRO. R/W DEPT.

RECEIVED
MAR 1 1967
OFFICE OF
DIVISION ENGINEER
DIVISION NO. 2

FORM E-123X 50M 7-66

RECEIVED
COMMISSIONERS
MAR 1 - 1967
FOR FILING

GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH H. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

8949

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

February 28, 1967

NOTED
R. L. PORTER

Mr. E. L. Adkins
Route 1, Box 492
Warrenton, Oregon

South Unit, Astoria-Camp Rilea
Section
Oregon Coast Highway
Clatsop County

Dear Sir:

In connection with your telephone call and correspondence with Mr. D. E. Mechring of January 24, 1967, we have again checked with the designers who are presently working on a plan to extend the present project southerly.

Although the design is not complete, I have requested that a description be furnished of the right of way necessary through your property. When this description is received the property will be appraised by an appraiser, then the appraisal will be reviewed by a senior appraiser and, at that time, we will be in a position to commence our negotiations.

It is impossible to accurately estimate when we will be in a position to negotiate but I am hopeful that it will be within the next sixty days.

We sincerely hope that this delay will not disrupt any plans you have made subject to our negotiation. If there is any way further we can help, please do not hesitate to contact us.

Very truly yours,

G. E. ROHDE
Chief Counsel

John R. Oakes
Assistant Right of Way Engineer

JRO:CE
cc: R. L. Porter
G. E. Rohde
R. D. Asburry
J. J. Smith
F. O. Scott

RECEIVED
FEB 28 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 6 - 1966
FOR FILING

8947

Salem, Oregon 97310
October 5, 1966

South Unit of Arterial-
Camp Adair Section

Mr. F. D. Morgan
Construction Engineer
BUILDING

784 1L

Please proceed immediately to remark this project to four-lane standards.

F. B. Elaine
Assistant State Highway Engineer

Millard

cc: L. H. Hurst
H. L. Ashley

RECEIVED
MAY 25 1966
FOR FILING

8947

May 23, 1966

Mr. E. H. Baldwin
Auditor and Police Judge
City of Warrenton
Warrenton, Oregon 97146

Dear Mr. Baldwin:

Referring to your letter of May 4, I am sending herewith a print of the right-of-way map covering a portion of the project known as the South Unit, Astoria-Camp Rilea. No basic alteration of the previous plan has been made except to provide for sufficient right-of-way to contain an eventual four lanes of highway.

In the area shown it was necessary to move in one direction only which required a shift of the proposed centerline of construction to the west and provide such adjustments as needed.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

Y. B. Blaine
Assistant State Highway Engineer

Enclosure

cc: Forrest Cooper
R. L. Porter
P. D. Morgan
H. S. Cox
Victor D. Wolfe
JEM:rw arb

(map - South Unit, Astoria-Camp Rilea, Oregon Coast Highway, Clatsop County - Drg. No. 8B-26-20)

CITY OF WARRENTON

WARRENTON, OREGON
97146

3413

MAY 9 66

HAROLD C. GRAMSON
MAYOR

EMERSON R. BALDWIN
AUDITOR AND POLICE JUDGE

P. O. Box 250
TELEPHONE 861-2233

May 4, 1966

REFERRED TO
Klabae
BY DEPUTY STATE HIGHWAY ENGINEER

Office of the State Highway Engineer
State of Oregon
Salem - Oregon

Dear Sirs

Are there available any survey or right-of-way requirements on the south end of the Smith Point - Camp Rilea projected improvement on Highway 101?

We are interested in this information for two reasons. Number one is the fact that the City of Warrenton has an old wood stave water line which is located in the east right-of-way and which will have to be moved.

The second reason is the fact that many of the property owners out in the Clatsop Plains area have come into the City Hall, wondering if there were any information available. If this could be made available to them, it would probably solve their problems.

The latest map that the City of Warrenton has is one dated 1962, and there are indications that the present routing does not follow that original survey.

Sincerely,

CITY OF WARRENTON

E. R. Baldwin
Auditor & Police Judge

ERB:jb

Routing

Morgan
Docker
Bond
Barbee
Walker
Glenn
Swan
Peace
Morel
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
MAY 10 1966
CONSTRUCTION DIV.

RECEIVED
MAY 6 1966
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
MAY 6 1966
OREGON
STATE HIGHWAY COMMISSION

Copy to Cooper 5-6-66

Morgan

RECEIVED
APR 12 1966
FOR FILING

8949

Salem, Oregon
April 11, 1966

D. H. Cowherd
Right of Way Engineer

OFFICE

State funds will be used for the purchase of right of way for the South Unit, Astoria-Seaside Section of the Oregon Coast Highway in Tillamook County.

The approximate limits are from Station 175 to Station 276, as shown on Map 8W-24-32.

You have estimated the cost to be $200,000 for right of way and $2,000 for relocation expense.

You should use Prefix 4-2005.

L. H. Young
Chief Engineer

JJH:lt

cc: C. L. Lewis

RECEIVED
SEP 7 - 1965
FOR FILING

FORM E-FOR 12-60 84677

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
September 2, 1965

SUBJECT: Carlson Property
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway

To:

Mr. R. D. Asberry
Division Engineer
State Highway Department
Salem, Oregon

Reply is made to your letter regarding subject matter and the possibility of acquiring right of way prior to actual construction or planning for a project.

Please be advised that we will do as in the past. We will give the owner no satisfaction, telling him that at the proper time for acquiring all the right of way through the project he will be contacted.

F. D. Morgan
Construction Engineer

FDM:fp

cc: F. B. Klaboe

NOTED
F. B. KLABOE

RECEIVED
SEP 3 1965
OFFICE OF
STATE HIGHWAY ENGINEER

8949

FORM E-20 8004 6-61 30661

NOTED
H. S. COX

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

September 12, 1963
Salem, Oregon

SUBJECT: File No. 35419 - Clatsop County
South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

NOTED
DON HARWELL

To: Mr. John D. Graham
City-County Relations
State Highway Building
Salem, Oregon

NOTED
JOHN D. GRAHAM

Attached you will find a memorandum of understanding with the Clatsop County Court which calls for complete restriction of access to the property secured from the county on the South Unit of the Astoria-Camp Rilea Section.

It was understood by the court, however, that a connection would be provided at the Columbia Beach connection road, and it was assumed also that any other through public routes would be connected under the provisions of the county-state agreement on the final plan.

Will you please see that this finds its proper place when these matters are arranged.

E. J. Benner

E. J. Benner
Right of Way Supervisor

EJB:kr

Attachment

RECEIVED
SEP 13 1963
ENGINEER
COUNTY & CITY DIVISION

I discussed this with Benner and explained to him that the County is satisfied with the connection as planned. No further action is necessary until an agreement is prepared JDG

FORM E-123X 50M 8-62

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

FLOYD QUERY, SECRETARY
SALEM

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 10

September 12, 1963

Honorable Guy H. Boyington
Judge of Clatsop County Court
Courthouse
Astoria, Oregon

Re: File No. 35419
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

Dear Judge Boyington:

This is to acknowledge and thank you and your court for the option which they have executed conveying the six parcels of county-owned land which will be needed for relocation of the above-designated section of highway.

This is further to confirm the understanding that the option carries a complete restriction of access to all the parcels except that access will be provided at Columbia Beach county road from Parcel 5, and that access from Parcel 6 will be confined to the connection road at that point. These connections will be embodied in the county-city agreement which will ultimately be drawn governing the final construction of the route. I am providing the County-City Relations office a copy of this memorandum so that they will be thus informed.

This is for the further purpose of confirming our understanding that if it appears that there is sufficient merchantable timber on the property to justify the operation, any logs having a top diameter of twelve inches or better will be cut and stockpiled for disposal by the county, this being your expressed preference over the procedure of putting the timber up for bid prior to the commencement of construction. A copy of this memorandum will be appended to the option as presented to the Highway Commission and for the information of our engineers so that the contractor in his bidding can be guided accordingly.

This office, as always, is very appreciative of the fine cooperation in these matters which has been extended by Clatsop County, and if this memorandum is not strictly in accordance with the understanding

which we have had, please let me know immediately and any necessary adjustments can be made before the option is finally submitted for acceptance.

Very truly yours,

L. I. LINDAS
Chief Counsel

E. J. Donner
Right of Way Supervisor

EJD:ir

cc Mr. John Graham
Mr. R. H. Asbury

5949

FORM S-1502 100M 4-58

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH H. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

FLOYD QUERY, SECRETARY
SALEM

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 10

July 16, 1963

NOTED
H. S. COX

NOTED
DON HARWELL

Mr. E. R. Baldwin
City Manager
City of Warrenton
Warrenton, Oregon

Dear Sir:

Under separate cover I am sending to you this date one set of prints of the proposed relocation of the South Unit of the Astoria-Camp Rilea Section of the Oregon Coast Highway.

As a portion of this relocation is within the limits of Warrenton, we are sending you these plans so that you can study and become familiar with them. I have indicated on the plans by red marking some proposed street closures within the city limits of Warrenton. No doubt somebody from the County and City Division of the Highway Department will contact you in the near future regarding an agreement for this project.

Should you have any questions or comments to make regarding this project, please feel free to contact this office regarding them.

Very truly yours,

R. D. Asburry

R. D. Asburry
Division Engineer

RDA:AM
cc Mr. H. S. Cox
Mr. E. J. Hall

RECEIVED
JUL 17 1963
ENGINEER
COUNTY & CITY DIVISION

8949

FORM S-1233 10M 5-62

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

FLOYD QUERY, SECRETARY
SALEM

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 10

July 16, 1963

NOTED
H. S. COX

NOTED
DON HARWELL

Honorable Guy Boyington
Clatsop County Judge
Court House
Astoria, Oregon

Dear Sir:

Under separate cover I am sending to you this date two plans of the proposed construction on the South Unit of the Astoria-Camp Rilea Section of the Oregon Coast Highway. You will note on one set of the plans there is marked in red proposed closures of Rodney Acres County Road. These closures will be necessary, as we are revising the connection of this county road to the relocated Oregon Coast Highway. If you have any criticisms or comments to make regarding this proposed relocation, please feel free to contact us.

Due to the aforementioned closure of Rodney Acres County Road, there will have to be an agreement between Clatsop County and the State Highway Department on this project. This agreement will be handled sometime in the near future by the County and City Division under the direction of Mr. H. S. Cox.

Very truly yours,

R. D. Asburry

R. D. Asburry
Division Engineer

RDA:AM
cc Mr. H. S. Cox
Mr. E. J. Hall

RECEIVED
JUL 17 1963
ENGINEER
COUNTY & CITY DIVISION

PAVEMENT TYPE SELECTION

Principal Factors Governing Selection

1. Traffic Classification: [illegible] Present ADT [illegible] 1985 ADT 6000 % Heavy Vehicles [illegible]
(NOTE: Increase classification one step for heavy logging use)

2. Soils Characteristics: See design chart attached

3. Weather: Frost Penetration [illegible] Precipitation Annual [illegible]

4. Performance of Similar Pavements in Area: Good X Fair [illegible] Poor [illegible]
Remarks: [illegible]

5. Cost Considerations: Not appropriate due to other factors

Secondary Or Less Governing Factors

6. Availability of Materials: A.B. on Oil [illegible]

7. Time Limitations: No problem

8. Equipment Limitations: [illegible]

9. Stage Construction: [illegible]

10. Miscellaneous: [illegible]

RECEIVED
JUL 1 - 1963
COMMISSIONERS
FOR FILING

GLENN L. JA... MEDFORD
KENNETH N. FRIDLEY, MEMBER WASCO
DAVID B. SIMPSON, MEMBER PORTLAND
FLOYD QUERY, SECRETARY SALEM

8949

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 10

June 20, 1963

Spokane, Portland & Seattle Railway Company
1101 N. W. Hoyt Street
Portland 9, Oregon

ATTENTION: Mr. H. F. Moy

Re: Preliminary Plans
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

Gentlemen:

We are planning a grading and paving project of the Oregon Coast Highway from the southerly terminus of the present construction to a point near Camp Rilea. We are sending, for your information, under separate cover, two copies of our preliminary plans of this section, which has not been placed on our tentative schedule of contract lettings.

The proposed new alignment, as shown on Sheet No. 1 of said plans, is southerly of the existing highway and will cross your tracks opposite the southerly tip of Smith Lake. Sheet No. 6 shows this proposed crossing in more detail.

If these plans meet with your approval, please prepare the necessary construction agreement and indenture for the project.

Very truly yours,

F. D. Morgan
Construction Engineer

By ORIGINAL SIGNED BY
T. W. LITCHFIELD

T. W. Litchfield
Utilities Liaison Engineer

NOTED
LLOYD P. SHAW

TWL:bjh

cc: L. P. Shaw
R. D. Ashcroft
F. W. Sagstad

RECEIVED
JUN 20 1963
OFFICE OF
HIGHWAY ENGINEER

RECEIVED
NOV 13 1961
FOR FILING
8947

November 10, 1961

Mr. H. P. May, Chief Engineer
Coolcane, Portland & Pacific Railway Co.
1101 N. W. Hoyt Street
Portland 7, Oregon

Re: South Unit, Astoria-
Crag Rock Section
Oregon Coast Highway

Dear Sir:

Reference is made to your letter of November 6 concerning the application to the Public Utility Commissioner for a grade crossing of your tracks near Crag Rock. In this letter, you ask that the application adhere to P.U.C. Order No. 37262 rather than Order No. 37619, which is the order covering the intersection crossing.

The Smith Rock crossing order, No. 37512, is a special thing secured by the fact that we were crossing your tracks and removing part of it in making our alignment. On the other hand, the crossing order, No. 37619, covers a situation where construction of practical grade separation at Crag Rock crossing. The requirements and conditions for the intersection crossing seem to be entirely applicable to this new crossing.

The application will follow out the requirements on the Crag Rock crossing, which is Public Order No. 37619, and have appropriate crossing signs and the signalizing of the crossing protection only provided for the installation of the crossing signals when in doing work for the extension there evidence is provided.

Very truly yours,

M. C. Williams
State Highway Engineer

By

C. S. Pearson
Assistant State Highway Engineer

CSP:ma

cc to: Mr. M. C. Williams
Mr. Glenn Sorenson

Form 1812

SPOKANE, PORTLAND AND SEATTLE RAILWAY COMPANY

OREGON TRUNK RAILWAY
OREGON ELECTRIC RAILWAY COMPANY
RUTH REALTY CO.

H. F. MOY,
SECRETARY
- CHIEF ENGINEER

OFFICE OF CHIEF ENGINEER

1101 N. W. HOYT STREET
PORTLAND 7, OREGON

November 6, 1961

Mr. W. C. Williams
State Highway Engineer
State Highway Department
Salem, Oregon

Attention: Mr. G. S. Paxson
Asst. State Highway Engr.

Dear Sir:

I refer you to your letter of October 24, 1961, re: South Unit, Astoria-Camp Rilea Section, Oregon Coast Highway, wherein you advise that the Oregon State Highway Commission is in the process of preparing an application to the Public Utility Commissioner for a grade crossing of our track west of Warrenton so that the State can continue the reconstruction of the Oregon Coast Highway, US 101.

I have no objection to the method outlined for handling this application as long as all of the terms are adhered to as far as reimbursement to the Railway is concerned as called for in PUC Order 37512, covering the Smith Point Grade Crossing, instead of Order 37639.

Very truly yours

H F Moy

Chief Engineer

HFM-c

RECEIVED
NOV 7 1961
OREGON
STATE HIGHWAY COMMISSION

RECEIVED
NOV 7 1961
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
OCT 25 1961
FOR FILING

8949

October 24, 1961

Mr. H. F. May, Chief Engineer
Spokane, Portland & Seattle Railway Company
1151 N. W. Hoyt Street
Portland 7, Oregon

Re: South Unit, Astoria-
Camp Miles Section
Oregon Coast Highway
Clatsop County

Dear Sir:

The State proposes to continue the reconstruction of the Oregon Coast Highway, Unit 1, southerly from the south end of the unit now under contract to a connection with the existing Oregon Coast Highway near Camp Miles. This involves the crossing of your tracks approximately one mile southerly from the present elimination grade crossing in the south edge of Warrenton. I am asking our attorney to prepare an application to the Public Utility Commissioner for an order covering the crossing.

We propose this to be a grade crossing with signals, the signals to be P.U.C. standard 2-H, which has the cantilever arm extending out over the trunk stopping lanes for better visibility. [illegible] the same signals that are called for in the supplemental [illegible] covering the Warrenton crossing. I have asked [illegible] to see the same allocation of cost and work as is provided in the [illegible] order in setting up this proposal. I am planning [illegible] a relief from the visibility zone of this crossing similar [illegible] dated October 1958 and revised October 1959.

The project will, of course, require the usual conveyance [illegible] grant of easement across the tracks. The [illegible] clear area surrounding the crossing from the south [illegible] feet, [illegible] feet on each side of the highway centerline. I would [illegible] the grant of easement across your right of way as in the [illegible]

Since this is a new crossing and will not eliminate any existing crossings of your track, no benefit can be assessed to the railroad company. It is a federal-aid job and will be conducted under federal FPM 30-3 and amendments and supplements thereto.

Very truly yours,

W. C. Williams
State Highway Engineer

By

G. S. Paulsen
Assistant State Highway Engineer

Attach.

GSP:ms

cc to: Mrs. W. C. Williams

Old SHIPANON CR.
27 34
28 33
to Astoria
SEATTLE
R R
to Seaside
AND
HIGHWAY
PORTLAND
COAST
OREGON
SHIPANON
SPOKANE
Lake
Smith
28 33
29 32
DYE
29'
7'
10'
12'
Asphalt Conc Class "B" 1½"
Asphalt conc. surf Class "B" 3"
Profile
.03 1/ft
.05 1/ft

Road Dec

Sec. 33 T 8N R 10W W M

TO ASTORIA 6.1 mi.

55

15

Proposed R/W

Proposed R/W

S 31°31'30" W

R60

Woods

50°45'30" W

15

15

Woods

1'

Asphalt Conc. Surf Class 'B' 1½"

Bottom Course Base 6"

242+56.04 PCS
D = 2.0
250.54
243+30.01 PCS
268+09.48 PT
265+06.04 PCC
5° CL
TA = 40°00'00"
Ts1 = 553.44
Ts2 = 659.41
269+31.04 PCS
Woods
268+09.48 PT
65
60
55
50
45
40

FED. ROAD Div. No.	STAT
8	OREG

274+31.04 P.T.

S 10° 38' E

a = 1.0
500' Sp.

STOP LANE
STA. 26

				SHEET No.
FED. ROAD Div. No.	STATE	PROJECT NUMBER	FISCAL YEAR	TOTAL SHEETS
8	OREGON			See Index

18" Sand Sub Base

Top Course Base 2"

Road Bed Section

R.R. PROFILE

DATE

BY

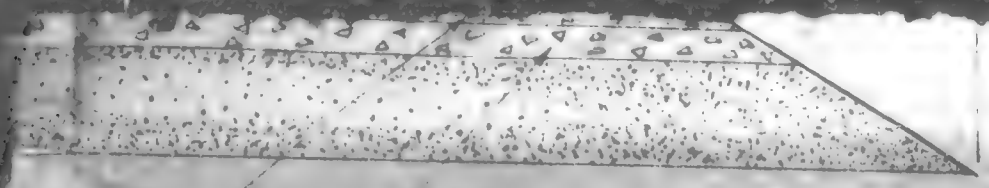
FINAL SURVEYS

PROFILE PLOTTED

CROSS SECTION TEMPLATE

AREAS

AREAS CHECKED



e 2" — Bottom Course Base 6"

on

SIGHT	DISTANCE
From	Highway
[illegible]	Distance
53 feet North	Unlimited Ft. 900 Ft
50 " "	760 Feet Ft. 765 Feet Ft
50 " South	1130 Feet Ft. Unlimited Ft
550 " "	775 " " 780 Feet Ft

60

55

50

45

40

20

RR PROFILE

For Surfacing Details
Shown See Section at

STOP LANE AT RAILROAD CROSS
STA. 283+50.07 LT. & RT.

E. J. [illegible]
U S C

Scale [illegible]
Revised [illegible]

For Surfacing Details Not
Shown See Section at Left

STOP LANE AT RAILROAD CROSSING
STA. 263+50.07 LT. & RT.

OREGON STATE HIGHWAY DEPT

S.P. & S. R.R. CROSSING

O.S.H.D. sta. 263+50.07

SOUTH UNIT

ASTORIA - CAMP RILEA SECTION

OREGON COAST HWY

CLATSOP CO.

E. J. HALL, RES. ENGR. OCTOBER 1960

U.S.C. & G.S. Mean Sea Level Datum

Scale: Plan 1"=100'; Horz 1"=50', Vert 1"=10'

Revised Rural Design OCTOBER 1961

05-CS-8B

RECEIVED
OCT 25 1961
FOR FILING
Comm
11/11
101 - Clatsop

Salem, Oregon
October 24, 1961

South Unit, Astoria-
Camp Rilea Section
Oregon Coast Highway
Clatsop County

Mr. Glen Sorenson

The State proposes to rebuild a section of the Oregon Coast Highway known as the South Unit, Astoria-Camp Rilea Section, in the near future. This south unit joints the north unit which is now under contract for grading. In this south unit we cross the track of the S. P. & S. Railway Company at a point approximately one mile south of the present grade crossing of their track in the south edge of Warrenton. It would be appreciated if you would make application to the Public Utility Commissioner for the necessary order covering the crossing. The data for the application is as follows:

We will cross the track at grade, providing a 2-lane travel section with stopping lanes for trucks and buses at each side of the traveled roadway, making essentially a 4-lane crossing of the track. I attach hereto four prints from the vicinity map of the crossing entitled "S.P. & S. R.R. Crossing, Oregon State Highway Department Station 263+50.07, dated October 1960, revised October 1961".

The crossing is in the SE¼, Section 33, T. 8 North, Range 10 West. The railroad is on a tangent at this point. The highway is on a spiral approaching a 5-degree curve. The highway station at the crossing is 263+50.05 and the railroad station is [illegible]. The angle between the railroad centerline and the tangent to the highway centerline is 24° 53' in the northeast quadrant. The railroad is on a level grade at this point and the grade of the highway is also level. Sight distances are as follows:

From a point on the highway 50 feet north of the crossing, unlimited sight distance to the right and 900 feet to the left.

From a point 500 feet north of the crossing, 160 feet right and 1[illegible] feet left.

From a point 50 feet south of the crossing, 1130 feet right and unlimited to the left.

From a point 500 feet south of the crossing, 175 feet right and 180 feet left.

Rail traffic consists of one train per day six days per week. It is anticipated that approximately 3000 vehicles will use the crossing per day.

It is proposed that the crossing be signalized with P.U.C. standard 2-B flashing light signals equipped with gongs, these signals to have a cantilevered arm extending out over the truck stopping lane so that they will be visible to vehicles on the interior travel lanes.

It is proposed that the railroad, at its own cost, should prepare the ballast across the four lanes of pavement and the shoulders, should install treated ties and should place headers to hold the pavement away from the rails, and the railroad, at the cost of the State, should furnish and install two P.U.C. standard 2-B signals with necessary power supply and track connections, should grout with cement the ballast across the crossing area, should revise its communication lines as necessary to allow construction and operation of the highway and should provide such watchmen and flagmen as necessary to protect its operations.

The State, at its own cost, should build the highway approaches, including stopping lanes, and pave the same, carrying the pavement across the crossing and between the rails of the railroad track.

It will be necessary that the State's contractor for the road work haul material and equipment across the crossing during construction of the highway and prior to the installation of signals. The order should permit this construction traffic crossing.

Upon completion of the project, the railroad, at its own cost, should maintain and operate the signals and maintain its track, including ties, rails, ballast and other railroad facilities. The State should, at its own cost, maintain all highway facilities, including the pavement between rails of the railroad track.

C. S. Paxson
Assistant State Highway Engineer

Attach.

CSP:ec

RECEIVED
OCT 25 1961
FOR FILING
8949

FORM E-30 REV 2-61 24307

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 18, 1961

S. Lmit

SUBJECT: Skipanon Railroad Crossing
Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

To: Mr. G. S. Paxson
Asst. State Highway Engineer
BUILDING

Attached are six prints of a vicinity map for subject crossing to be used for PUC hearings.

The use of stopping lanes has been approved by Mr. Cooper.

The original vicinity map has been filed in the Design Section files.

Tom Edwards
Construction Engineer

By

J. E. Morelock
Chief Locating Engineer

JEM:jk

Attachment

RECEIVED
OCT 19 1961
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
G. S. PAXSON

RECEIVED
OCT 13 1961
OR-FHWA

8-9-19

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENTAL CORRESPONDENCE

Salem, Oregon
October 11, 1961

To: Mr. [illegible]
Coast [illegible]
SUBJECT: Astoria-Camp Rilea (South Unit)
Oregon Coast Highway
Stopping Lanes at Skipanon
"At Grade" Railroad Crossing

Circuit's letter of June 2, 1961 requires that facts ... lanes at railroad crossings be assembled and ... for decision.

... data is submitted in regard to the use of ... railroad crossing:

... Portland, and Seattle Railroad ... at grade ... (1 main southern) ... (1 siding--Nygren) ... Railroad ...

... crossing ...

ADT (1960) ...
Trains per ...
High speed ...
Trucks ...
Existing ... (1 crossing) ... (1 siding)
Proposed ...
Accident ... (1 fatal)

.1979 S. Unit, Astoria - 8949
.Camp Rilea Sec. 101
.AMAX Co. #4

8949

FORM E-50 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

January 16, 1975

SUBJECT: S. Unit Astoria-Camp Rilea Section
Oregon Coast Highway

To: E. S. Hunter
Assistant State Highway Engineer

RECEIVED
JAN 20 1975
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

This project is on the six-year program and is scheduled for 1979. It includes grading, paving, structures and signing over a total length of 2.2 miles. The estimated construction cost (for a 4-lane improvement) is $5,600,000.

The Highway Division is considering downscoping this project. The latest modification would include only two 12-foot travel lanes with 8-foot shoulders on each side of the road, except for the following points:

1. Left-turn refuge at the north end of the project.
2. Left-turn refuge at Dolphin Avenue.
3. Four travel lanes and a turning lane in the southerly 2/3 mile segment of the project (from the railroad crossing to the south end of the project).

NOTED
F. B. KLABOE

Cost estimate for the revised project is $2,750,000.

The project will require a Draft Environmental Impact Statement. The present workload of the Environmental Section will delay the start of work on this draft until the spring of 1976. It will take approximately four to five months of work to complete the draft EIS.

There is right of way yet to be purchased. The 25 parcels that still have to be acquired will involve the taking of some homes, requiring a minimum of nine months to complete this work due to the relocation of a number of families.

An improvement of the Oregon Coast Highway at the intersection with Marlin Avenue in the city of Warrenton is scheduled for construction. This project is among those listed in the first $25 million of Highway Bonds sold, and the construction contract is scheduled to be let on March 27, 1975. It consists of the construction of left-turn refuges for Marlin Avenue at an estimated cost of $50,000.

Victor D. Wolfe
Location Engineer

VAB/WAE:mc

CLATSOP COUNTY

Courthouse . . . . Astoria, Oregon 97103

January 7, 1975

Mr. Cecil Head
Commission & Staff Services Section
Department of Transportation
Highway Building
Salem, Oregon 97310

Dear Mr. Head:

In response to the letter from Floyd Shelton of December 13, 1974, relative to attendance at a Transportation Commission meeting in January, the Board of Commissioners has directed me to inform you that they are most appreciative of your invitation but find they are not in a position to adequately use the opportunity to good advantage at that time.

There is strong hope that an audience will be requested in February and your office will be kept informed as to a possible time on the premise that it will be mutually agreeable to both agencies.

Many thanks for your consideration on our behalf.

Most sincerely,

BOARD OF COUNTY COMMISSIONERS
CLATSOP COUNTY, OREGON

BY A. E. Almcrants
A. E. Almcrants
Administrative Assistant

AEA:ss

1-8-75 Copies to
Klaboe
Hunter
Shelton

NOTED
C. W. HEAD

RECEIVED
JAN 8 1975
COMMISSION AND STAFF SERVICES
DEPARTMENT OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION

HIGHWAY BUILDING • • SALEM, OREGON • • 97310

December 13, 1974

TOM McCALL
GOVERNOR

GEORGE M. BALDWIN
Director of Transportation

SAM R. HALEY
Deputy Director

Mr. Hiriam C. Johnson
Clatsop County Commission
Clatsop County Courthouse
Astoria, OR 97103

Dear Hiriam:

I have discussed with Cecil Head, (378-6526) of the Commission and Staff Services Section of the Department of Transportation the possibility of agenda time on the next Transportation Commission meeting for your local delegation. I explained that the purpose of the request was to discuss the transportational aspects of the AMAX construction.

I was assured by Mr. Head that time could be reserved, but that the specific meeting date would not be determined until December 18, 1974. The probability is that the Commission will meet sometime late in January, 1975, (maybe 22nd or 29th).

In any event, he requested that you address a letter to the Commission, Room 121, State Highway Building, Salem, OR 97310, requesting the time and indicating the topic and people who will attend.

If you will take that action, it will help keep the wheels spinning. Please keep me informed of your action, and if I can be of any help, please call.

Sincerely,

Floyd

Floyd Shelton
Transportation Planner (Ports)

Ext. 4081

bc: Cecil Head

12.27

STATE OF OREGON
Department of Transportation

INTEROFFICE MEMO

TO: Robert E. Royer
Planning Manager

DATE: December 12, 1974

File No.: PLA 5-2

FROM: Ronard T. Schaadt
Statewide Studies Coordinator

SUBJECT: Proposed AMAX Reduction Plant in Warrenton, Oregon

As a follow-up to the Statewide Studies Team review of the AMAX impact statements, a meeting was held in Astoria, Oregon. The meeting was expanded from ODOT-AMAX personnel to include the below list in response to local interest. The purpose of this meeting was to discuss potential transportational impacts as a result of the AMAX proposal.

Gail Packard	Port of Astoria
Eldon Everton	Oregon State Highway Division
Gerald Wimer	Oregon State Highway Division
David W. Megrath	Clatsop County Commissioner
Bill Monroe	Clatsop County Planning Representative
Steve Baywell	The Daily Astorian
Fred Andrus	Warrenton Planning Commission
Jack Lesch	Clatsop/Tillamook Intergovernmental Council
Terry A. Marden	Clatsop County Planning Department
Bill Vassell	Clatsop County-Land and Building Department
Russ Dark	The Oregonian
John Dooley	Clatsop County Road Department
Dick Baldwin	City of Warrenton
Lyle Lendrey	Clatsop County
Hiriam C. Johnson	Clatsop County Commission
Victor Nunemkemp	AMAX Pacific Aluminum Corporation
Jim Howarth	AMAX Pacific Aluminum Corporation
Ronard Schaadt	Oregon Department of Transportation
Floyd Shelton	Oregon Department of Transportation

SUMMARY OF MEETING NOTES

1. A representative of Burlington Northern (BN) will visit ODOT December 16, 1974. The exact nature of the meeting and attendees will be decided shortly.

NOTED
W. H. TEBEAU

RECEIVED
DEC 23 1974
LOCATION SECTION

Wolfe
States report Meeting
for Comm.
EBH
to page 3.

81-125-1387

STATE OF OREGON
Department of Transportation

INTEROFFICE MEMO

DATE: December 12, 1974

File No.: PLA 5-2

TO: Robert E. Royer
Planning Manager

FROM: Ronard T. Schaadt
Statewide Studies Coordinator

SUBJECT: Proposed AMAX Reduction Plant in Warrenton, Oregon

As a follow-up to the Statewide Studies Team review of the AMAX impact statements, a meeting was held in Astoria, Oregon. The meeting was expanded from ODOT-AMAX personnel to include the below list in response to local interest. The purpose of this meeting was to discuss potential transportational impacts as a result of the AMAX proposal.

Gail Packard	Port of Astoria
Eldon Everton	Oregon State Highway Division
Gerald Wimer	Oregon State Highway Division
David W. Megrath	Clatsop County Commissioner
Bill Monroe	Clatsop County Planning Representative
Steve Baywell	The Daily Astorian
Fred Andrus	Warrenton Planning Commission
Jack Lesch	Clatsop/Tillamook Intergovernmental Council
Terry A. Marden	Clatsop County Planning Department
Bill Vassell	Clatsop County-Land and Building Department
Russ Dark	The Oregonian
John Dooley	Clatsop County Road Department
Dick Baldwin	City of Warrenton
Lyle Lendrey	Clatsop County
Hiriam C. Johnson	Clatsop County Commission
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Floyd Shelton	Oregon Department of Transportation

SUMMARY OF MEETING NOTES

1. A representative of Burlington Northern (BN) will visit ODOT December 16, 1974. The exact nature of the meeting and attendees will be decided shortly.

12-20 rep'd to Hunter
P/L discuss.
12-23 rep'd
To Wayne for
states report
for com.

81-125-1367

2. The BN is working towards an east side rail access to the AMAX site. Eight months for construction is anticipated.

3. A decision on the AMAX/BN rail rate is scheduled to be made in mid-January, 1975. This decision is a first step for AMAX to opt for rail or truck.

4. Interest was expressed in the development of a rail grade separation over old US101.

5. The Federal Aviation Administration (FAA) is currently determining the minimum distance which a rail spur would require from the end of the east-west runway.

6. Local officials expect the plant to be under construction by the spring of 1975.

7. The major plant construction access point will be off Dolphin Road.

8. A letter (attached) was presented for delivery to the Department expressing concern over the Marlin Avenue-US101 Intersection.

9. In general discussion, it was purported that Glenn Jackson had promised the immediate construction of the Camp Riley-Unit of US101 upon the knowledge that the AMAX construction had begun. Jerry Wimer stated that this particular section was now listed on the Six-Year Program for Construction during 1979. He explained that this program was flexible and local comments are being encouraged. Time was requested on the January 1975 Transportation Commission Agenda for a local delegation to express their desire to have the Camp Riley-Unit construction begin immediately. Since the Department of Environmental Quality decision may have a bearing on the Transportation Commission decision, I checked with DEQ to ascertain the status of the permit request. I found that the January 24, 1976 Commission Meeting will be the earliest DEQ will make a decision on AMAX's permit request. Of 15/18 items under consideration, three are of significance:

    1. Estuary impact,
    2. Air quality,
    3. Highest and best treatment of air emissions.

10. Jim Howarth, the AMAX Warrenton Plant Project Director, stated that there would be a need for further discussion on the possibility of AMAX paying for highway improvements necessitated by the plant.

11. AMAX is beginning (December 18, 1974) a rental housing survey of the Astoria/Warrenton area to determine availability of housing units for the 1,400 (estimated) construction workers.

12. Mr. Howarth expressed limited interest in pushing bus service for the company's employees.

13. The concrete batch plant is now planned to be on-site which will reduce local traffic congestion.

As per our phone conversation (December 6, 1974), the following action is being taken:

1. Jerry Wimer is documenting appropriate letters of interest regarding the current design status of the Camp Riley-Unit.

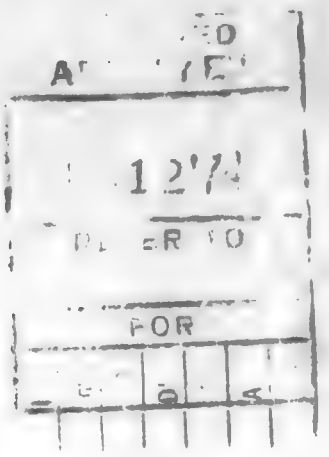
2. Mr. Hunter is having the Highway files searched regarding the Camp Riley-Unit.

3. I am scheduling a local delegation on the January 1975 Transportation Commission Agenda.

4. I will arrange for a meeting with the BN representative on December 16, 1974.

5. A subsequent meeting with local officials prior to the January Transportation Commission Meeting is probably desirable. This will be scheduled after a few of the above items have provided direction for the Department.

RTS/FLS:ap
Attachment
cc: George M. Baldwin
F. B. Klaboe
E. S. Hunter



Warrenton, Or.
December 4, 1974

Department of Transportation
State of Oregon

Gentlemen:

It is the Warrenton Planning Commission's belief that a potential transportation hazard could exist in the area where the proposed Amax plant and a shopping center are intending to locate.

We believe that the increased traffic volume will greatly overload the present intersection of Highway 101 and Marlin Avenue.

We suggest that an overpass system might be considered as a means of solving the problem.

We further suggest that whatever means of handling transportation problems is dedided upon, it should be implemented concurrently with the opening of any significant establishment in the affected area.

WARRENTON PLANNING COMMISSION

Fred Andrus

Fred Andrus
Chairman

The luncheon served by John Van Horn at the Sunset Empire Room was the first test of public opinion of the prouct which will be marketed under the label of Pacific Shrimp Delight.

If the reaction Friday was any indication, the product will be a success.

Dr. Jerry Babbitt, the scientist at the OSU Seafoods Lab who headed the research project that led to the product, said today it was an outgrowth of continuing efforts to utilize better existing fishery resources — especially bottom fish.

Babbitt also said the product will benefit Pacific Shrimp and area fishermen.

Secondary processing will allow Kenny Berg's fish processing plant to operate more on a year-round basis and that will increase demand for more and different kinds of fish, he explained.

What's more, the patty will be an entirely new product that will open up new channels for fish sales, Babbitt added.

Work still must be done to line up effective distribution channels for the product, but so far two restaurants on the North Coast — the Sunset Empire Room and The Whaler in Cannon Beach — are serving the dish.

Another restaurant has been approached in the Portland area, said Van Horn who is helping Berg set up a distribution system.

Van Horn also assisted in testing of the product. He prepared a 200-pound batch of patties that were served at the

Rockefeller confirmation seems sure

WASHINGTON (AP) — The Senate opened debate on Nelson A. Rockefeller's vice presidential nomination today as Democratic and Republican leaders predicted only a few members will vote against him.

Assistant Democratic Leader Robert C. Byrd, of West Virginia said he believes the former New York governor will be confirmed by an overwhelming margin in the vote Tuesday afternoon.

Byrd, a member of the Senate Rules Committee which held hearings on the nomination and voted unanimously to recommend approval, said he would vote for it, even though a bit reluctantly.

Byrd said he believes Rockefeller did not answer all questions sufficiently and said he still has questions regarding potential conflict of interest issues.

for U.S. energy policy

WASHINGTON (AP) — Public hearings are going to provide a forum for business and consumer groups to give their ideas on U.S. energy policy as President Ford's advisers prepared to huddle at Camp David to weigh some strict fuel-saving proposals.

Dozens of witnesses at the three-day hearings beginning today were scheduled to comment on the "Project Independence" study submitted la month by the Federal Energy A ministration and to discuss the comple issues involved with energy policie

Consumer concerns and busine concerns were the topics at today hearings.

The hearings precede a policy sessic of the cabinet-level Energy Resourc Council.

12/9/74 - Monday Daily Astoria

Highway 10

By STEVE BAGWELL
Of The Daily Astorian

WARRENTON—A major misunderstanding between the State Highway Division and North Coast officials surfaced Friday at a meeting on the expected transportation impact of the proposed AMAX aluminum plant.

Local officials thought construction of the plant would lead to prompt improvement of Highway 101 between Camp Rilea and Astoria.

Not so said Highway Division representatives. Widening and realignment of the road is set for 1979 at the earliest, whether the plant is built or not.

Clatsop County Commissioners Dave Megrath, Lyle Ordway and Hiram Johnson protested. So did Warrenton City Manager Dick Baldwin.

They said they had been led to believe the state would take steps to reconstruct Highway 101 as soon as it was certain the aluminum plant was in the works.

Baldwin said there had been a letter to that effect from State Transportation Commission Chairman Glenn Jackson.

Dept. of Transportation representative Ron Schaadt said he had no knowledge of such a commitment. He said the department recently completed a six-year plan of highway improvement for the state listing the 101 project for 1979.

Schaadt said the plan will be reviewed annually and the $5.5 million project might be moved forward during the review process. But he said if it was, $5.5 million worth of other projects would have to be moved back because the department only has so much money to work with.

He didn't hold out much hope of an imminent priority change for the 101 project.

Asked by Megrath how soon work could start if funding wasn't a problem, Schaadt replied, "1975." He explained that virtually all of the right-of-way h been acquired and project planning w complete.

Megrath then asked if a comprom was possible. He suggested the cou might be willing to settle for less th the four-lane, fully divided, fu shouldered highway the state l planned if the state could promise move up the project.

Schaadt said that was a possibili But he said even a three-lane roadw would be costly, other projects Oregon still would have to be mov back and action still probably wo have to wait until the next ann review of the six year plan.

The officials said they didn't th that was good enough. They were join by Clatsop-Tillamook tergovernmental Council Director Ja Lesch, Clatsop County Roadmas John Dooley and AMAX Proj Manager Jim Howarth in urging st reconsideration.

Johnson said the construction AMAX would lead to an "emerge situation" for Highway 101. Bald said "intolerable" was a better w for it, adding he was "non plussed" the state attitude.

Megrath said he was equa "disturbed" by it, noting increas traffic would cause serious congesti

Dooley said, "We've been hearing years that you would realign 101 wi the aluminum plant issue was settle Howarth said, "I understood it I been promised."

Megrath said he thought local ficials should "implore the state dramatically accelerate 101 reali ment." Johnson sai it should be d at the first State Transportat Commission meeting of 1975 after new appointees of the new governor seated.

The local officials present agre that was the best course of action. contingent said they will appear at January meeting.

explorer's footsteps as he walked from Fort Clatsop National Memorial to the coast.

The Scouts took the 19-mile h[illegible] to publicize plans to designate the trail as a national h[illegible]ric trail.

The were met at the end of the hike—at the salt cairn in Seaside—by Dr. Edward Harvey of Astoria who gave a short talk about the importance of the Lewis and Clark exploration.

Scouts now are planning to assist Harvey, a member of Oregon's Lewis and Clark Trail Committee, properly mark the trail which goes over Tillamook Head to Ecola State Park, a trail Clark also followed.

Heading up the hike Saturday and Sunday were Jim Cato and Bruce Cottam. Scouts from Astoria, Warrenton, Lewis and Clark, Gearhart, Knappa, Westport, Seaside and Portland participated.

The hike started at Fort Clatsop, where park rangers were putting on a living history demonstration, including firing of a musket. Along the way, hikers saw an eagle tree with a bald eagle perched on it.

State: Camp Rilea leg long way off

State representatives and local officials saw eye-to-eye on most other expected highway problems. They also appeared to agree on most issues involving trail, bus, boat and air traffic impacts.

Everyone said a number of intersections in the vicinity of the plant, including Marlin-101, Dolphin-101, Marlin-old 101 and 101-old 101 would need work if the plant was built.

However, Warrenton Planning Commission Chairman Fred Andrus questioned whether the proposed left-turn lane at the Marlin-101 intersection was enough.

He said a shopping center is planned for one side of the highway there in addition to the aluminum plant on the other and suggested an overpass might be more appropriate.

The state representatives didn't comment directly on the request.

Dooley noted two county roads, Dolphin Avenue and Perkins Road, would have to be improved. Though Howarth assured him they wouldn't be receiving heavy truck traffic during construction, Dooley said their oil mat surfaces couldn't stand anything heavier than auto traffic.

Dooley also said other county roads might have to be upgraded, but added he won't know which ones until it is clearer where construction workers and plant workers will be living.

Howarth said AMAX is conducting a housing survey and should have some answers by the end of January.

He said AMAX may be forced to build a mobile home park of its own if the survey shows that's the only way needs could be met, but said he hoped the "free market system" would take care of them.

Schaadt noted the state would be leaving the present Warrenton section of Highway 101 in place after realignment to aid in worker transportation. Local officials said that would help solve congestion problems, but certainly wasn't a substitute for 101 upgrading and other road improvement.

Turning to expected rail impacts of AMAX, Schaadt said Burlington-Northern officers had been unable to attend the confab, but would be meeting with Dept. of Transportation officials later this month in Salem to talk over plans.

He said the railroad definitely was planning to replace the Youngs Bay span with a rail bridge capable of supporting greater loads.

Port of Astoria Traffic Manager Gail Packard confirmed that. He said Burlington-Northern has a used bridge to put in and probably will be storing it at the port until it can begin construction of new rail facilities.

Packard said the railroad intends to have the new bridge in before aluminum plant construction progresses very far.

Howarth noted his firm plans to transport nearly all of its construction materials by rail.

He said AMAX also hopes to transport its bauxite and alumina by rail, though it hasn't reached rate agreements with Burlington-Northern and still is considering truck transport of the finished product to the port's Pier 3.

Howarth said that would mean daily movement of 57 trucks to and from port docks. Packard said that wouldn't constitute a problem.

Burlington-Northern already has begun to lay plans to improve its track to the North Coast. It also intends to replace its rail bridge over the

Continued to Page 2

Sunday marks 52nd anniversary of fire

Sunday was the 52nd anniversary of the 1922 fire that destroyed Astoria's business district, causing losses of millions of dollars by wiping out 17 blocks, mostly of mercantile establishments.

It was one of the worst fire losses in the history of Oregon, although there was no loss of life directly attributable to the blaze.

Cause of the fire remains a mystery. It broke out during the night and was not finally extinguished until the following afternoon.

Reconstruction of the devastated business district was substantially completed within two years.

Downtown Astoria in those days was largely built of frame structures on wooden pilings. Streets were also raised on pilings, and the open passageways under the streets were pathways by which the fire spread swiftly through the area, making it almost impossible to fight the fire.

In rebuilding the city, streets were made of concrete, eliminating the risk of a repetition of the 1922 disaster.

recommendations.

March.

101 / Camp Rilea leg long way off

Continued from Page 1

Skipanon River in Warrenton before the state replaces the highway bridge there, Packard said.

Schaadt said of the four alternate routes for a rail spur into the plant, the state Highway Division representatives favor the one designated which passes near the airport and enters the plant from the northeast. He noted it would require only two new rail crossings, an elevated crossing of the state's old Highway 101 and a grade crossing of the Clatsop Airport access road.

Howarth said it would simplify rail traffic and cut Burlington-Northern costs, hence AMAX rates. It also would lessen the impact on Warrenton, he and Baldwin noted.

Johnson said that if route D is selected, planners should consider extending the line on down to the main line to Seaside, making the railroad trackage into Warrenton a spur instead of the AMAX access trackage. Baldwin said Warrenton would see that as a plus.

The only problem with that preferred route appears to be its proximity to the airport. But Packard said he had already contacted the Federal Aviation Administration about it and it appeared the matter could be worked out.

Ordway and Megrath raised the possibility of making the airport road crossing an elevated one like the old 101 crossing and that possibility apparently will be considered by Burlington-Northern.

In its report to the Dept. of Environmental Quality, the Dept. of Transportation suggested the improvement of rail lines into the area because of aluminum plant construction would enhance greatly the possibility of getting recreational passenger service begun on the Portland-Seaside rail line, but that didn't get a great deal of attention at the meeting.

Much more attention was paid to the possibility, also suggested by transportation planners, that bus service would be improved on the North Coast.

Though Howarth said AMAX wasn't interested in getting into the bus business, he said the company does have a stake in improved mass transit and has had some discussions with local people involved in it.

There is a possibility Greyhound could add a Warrenton stop, that TBR Transit of Astoria could begin Warrenton-AMAX service or that another solution to increased commuter needs could be worked out, all agreed.

Boat traffic also would be affected by aluminum plant plans if local officials are able to persuade the Coast Guard to restrict openings of the Youngs Bay highway and rail bridges during peak traffic hours, it was noted.

Most officials seemed to believe restrictions were desirable and possible to achieve during morning and afternoon rush hours.

Air traffic only would be affected if the preferred rail route is adopted and a spur built adjacent to the Clatsop County Airport. In that event, the Federal Aviation Administration and the airport operator, the Port of Astoria, would have to plan for runway expansion in coordination with rail construction.

Except for the hassle over Highway 101 work, the affair seemed to be fruitful.

A large amount of information was passed and promised, a lot of productive brainstorming took place and everyone seemed to leave with a better idea of what construction of the proposed plant would mean in the way of transportation needs.

Before the meeting broke up, Howarth mentioned the possibility an aluminum extrusion plant also may be built in this area, adding to demands on transportation networks.

But planning for such a plant somewhere in Oregon has hardly begun and there is no indication the North Coast has an edge over other areas in getting it.

Schedule of Public Meetings

MONDAY

Jewell School Board, 8 p.m., Jewell School.

Warrenton-Hammond School Board, 8 p.m., Warrenton High School library.

Neahkahnie School Board, 8 p.m., district offices in Rockaway.

Ocean Beach School Board, 8 p.m., Ilwaco High School library.

Seaside City Council, 8 p.m., Seaside City Hall.

TUESDAY

Astoria School Board, 7:30 p.m., district offices.

Seaside School Board, 7:30 p.m., district offices.

Lewis and Clark School Board, 7:30 p.m., Lewis and Clark School.

Clatsop County Commission, 7:30 p.m., public hearing on college fine arts complex site, county courthouse.

Clatsop-Tillamook Intergovernmental Council, 11:30 p.m., Tolovana Inn Restaurant, Cannon Beach.

Astoria Planning Commission, 7 p.m., city council chambers, city hall.

Astoria Traffic Safety Committee, 7:30 p.m., city manager's office, city hall.

Clatsop Parks and Recreation Committee, 7:30 p.m., District Court, Clatsop County Courthouse.

Port of Astoria Commission, 7:30 p.m., port commission meeting room, port offices.

as .19 of precipitation
Total rainf
is 1.72 inch
year's total
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chance of s
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Spots of ice
higher elevati

Ski

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inquire locally
roads.
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Timberline -
one inch new.
Mount Hood
degrees, trace
Night skiing
Oregon Cas
snow today
tonight. Free
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west to 30 mi

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Jeffe
3

8949

Salem, Oregon
December 30, 1974

J. M. Versteeg
Road Design Engineer

South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway

Gerald M. Wimer
Region 2 Construction Engineer

The design proposed for this project will have two 12' travel lanes with 8' shoulders between Stations 170 to 275. Left turn refuges are proposed at Stations 179 and 224 (Dolphin Avenue). We are proposing a four lane section with a turning lane from Station 275 to Station 310. This proposed design should adequately serve the needs for left turns, bicycle use and provide adequate capacity but may be a bit short on passing sight distances as you have pointed out.

The Location Engineer has recommended that the new section be surcharged rather than subexcavated as you have proposed. Frank Terpin is preparing cost estimates of these two proposals for consideration. With the surcharge proposal a six month embankment settlement time would be required.

REFERRED TO
Board ____ Reed ____
____ Sample ____
____ Watson ____
____ Wolfe ____
____ Please Do ____ File Copy Dat____
____ FINAL DESIGN ENGINEER

JMV:lh
cc: Victor D. Wolfe.

RECEIVED
DEC 30 1974
ROAD DESIGN SECTION

____ Versteeg
1 A. Olson
2 Terpin
____ Scott
____ Swenson
____ R. Olson
____ Trout

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To ____
Bring Up ____/____/____
Other ____

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

December 2, 1974

FILE: 4-1454

FROM: Gerald W. Wimer
REGION CONSTRUCTION ENGINEER

SUBJECT: South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway

TO: Hal Versteeg
ROAD DESIGN ENGINEER

This office certainly concurs in the principle of downscoping. Every effort should be made to reduce construction costs and extend the length of a practical design.

This office has previously gone on record of eliminating the continuous median for the subject project. We do, however, question cutting to your proposed two lanes.

With two lanes, the areas available for passing would become:

DIRECTION	STATION LIMITS	TOTAL LENGTH
Southbound	188+50 to 207	1850 feet
	232 to 263	3100 feet
Northbound	198+50 to 217	1800 feet
	242 to 264	2200 feet

ADT 4500 N
2,000

Of the two passing opportunities each direction the northerly one in each instance is short and encumbered with a vertical curve. Northerly of the project, the proposed Marlin Avenue Intersection will reduce the present passing opportunity. At the southend of the project, the new alignment intersects a tangent on the existing highway cutting that passing opportunity.

A reduced four lane section consisting of 4 foot shoulders, 12 foot lanes, and refuges where necessary is estimated to cost $754,000 or $93,000 more than your two lane proposal. It is also $241,000 less than the previous four lane plan. This reduced four lane plan certainly fits the concept of downscoping and is recommended by this office. An estimate of cost and typical section for this minimum four lane proposal is attached.

The recommended reduced 4 lane section is in keeping with the 4 lane that has been done by State Maintenance Forces northerly of Gearhart. No median and narrow shoulders were utilized in the State Force construction. This will leave an approximate 4 mile gap which is being worked on by State Forces as time and funds permit.

GWW/elk
Attach.

1 Versteeg ✓
A. Olson
2 Terpin T
Scott
Swenson
R. Olson
Trout

RECEIVED
DEC 3 - 1974
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up 12/27/74
Other

SECTION Astoria - Camp Riley ESTIMATE OF COST 11/23/14 SHEET__ OF__

HIGHWAY

NO.	ITEM	UNIT	NET	ALLOW.	GROSS	UNIT COST	TOTAL COST
1	Aggregate Base	Ton	41,700			$ 4.50	$ 187,654.52
2	Asphaltic Conc. Mix	Ton	40,373			7.25	292,704.25
3	Asph. Cement in Mix	Ton	2543			100.00	254,300.00

Surfacing for Minimum Four Lane Section with intermittent Refugees

		4'	Shoulders				
		12'	Lanes				
		16'	Refugees				

E 734 G51 T5

NEW

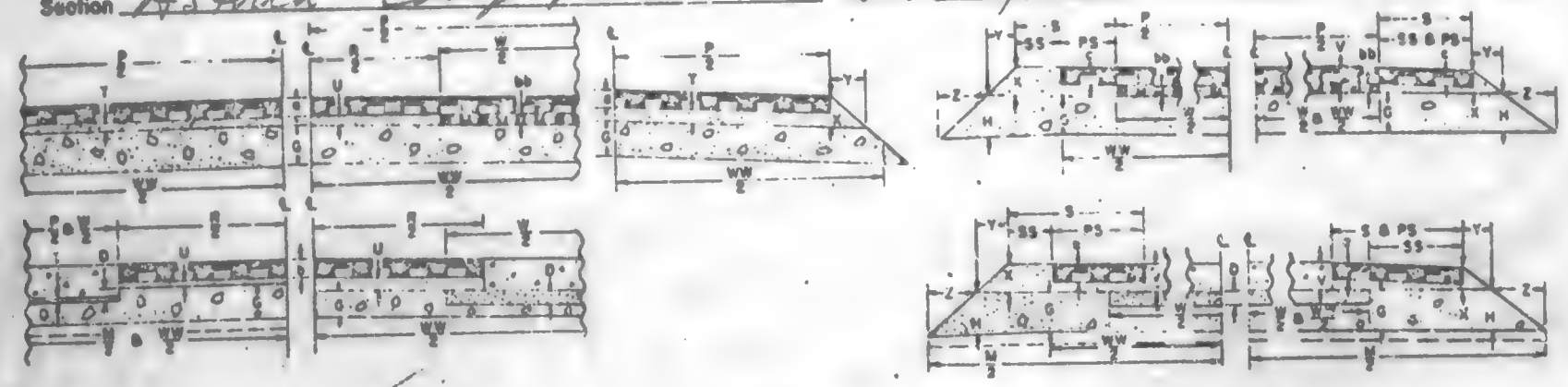
OREGON, STATE HIGHWAY DEPARTMENT

Sheet 1 of 1 Sheets

Surfacing Calculation Sheet

Made By Hildebrandt Date 11/22/74 Checked By _____ Date _____

Section Astoria - Camp Rilea Highway Oreg. Coast County Clatsop



Length of Section 11,800 (L) Feet (Use above space for sketch of Typical Section used and/or calculations) Specific Gravity 2.85

LIME TREATED SUBGRADE ____ (W) X ____ (L) = ____ Sq Yds.
9 (Depth in inches)

Lime ____ / 6 X .0125 X (d) ____ = ____ Tons

STONE BASE

[((S) / 2 X (H)) + ((SS+Y) / 2 X (W))] + [((S) / 2 X (H)) + ((SS+Y) / 2 X (W))] / 27 ((L)) = ____

((WW) / 12 X (G) / 27 X (L) 11,000) or [((WW) X (G)) - ((D) / 27 X (W)) X (L)] = 2444

(1.30) = ____ Cu. Yds.

(2.0) = 4889 Tons

TOP COURSE BASE and SHOULDERS

Top Course [((R) X (U)) + ((P) X (T)) / 27] ((L)) = ____

Shoulders [((V) / 2 X (S)) + ((X) / 2 X (V)) - ((PS) X (C)) / 27] (2) ((L)) = ____

(1.30) = ____ Cu. Yds.

(*) = ____ Tons

WATERING

Crushed Material ____ Cu. Yd. X .025 = ____

Earthwork ____ Cu. Yd. X ____ = ____

* To be furnished by Construction Department

____ M-Gals.

CEMENT TREATED BASE ((W) X (D) / 27 X (L)) ( )* = ____ Tons

Cement in C.T.B. .05 X (d) ____ = ____ Tons

Asphalt in Seal (W) ____ X (L) ____ X .00009 = ____ Tons

PLANT-MIX BITUMINOUS BASE (W) ____ X (L) ____ X ____ (Tons/Sq Ft / 1" Thick) X ____ (t) = ____ Tons

Asphalt in Bituminous Base Mixture .045 X (t) ____ = ____ Tons

ASPHALT CONCRETE PAVEMENT

Roadway (W) 12' X (L) 11,000 X (t) 2" X (Tons/Sq Ft / 1" Thick) .00642 = 5085

Shoulders ~~& Median~~ Class C. (W) 12' X (L) 11,000 X (t) 2" X .00642 = 847

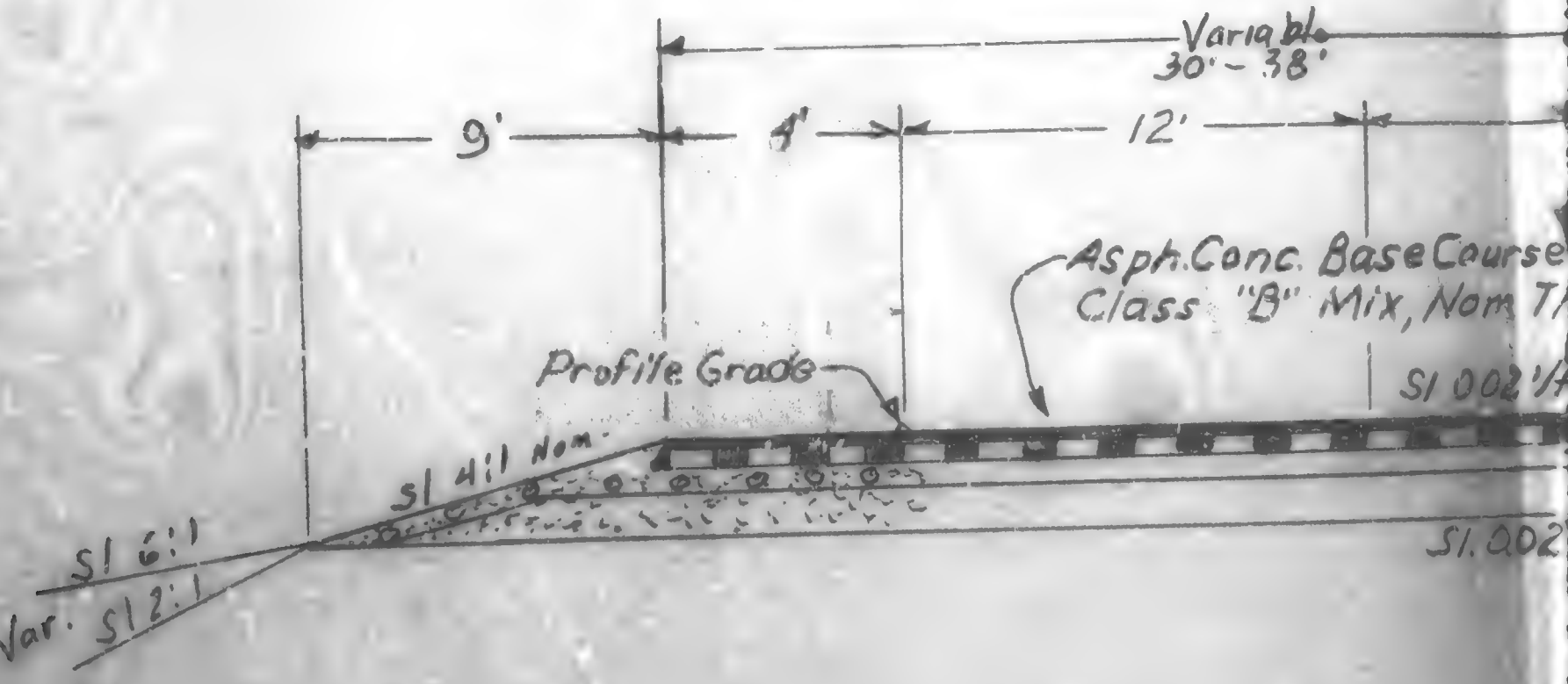
5932 Tons

Asphalt Cement in Mixture .055 X (g) 5932 . 280 Tons

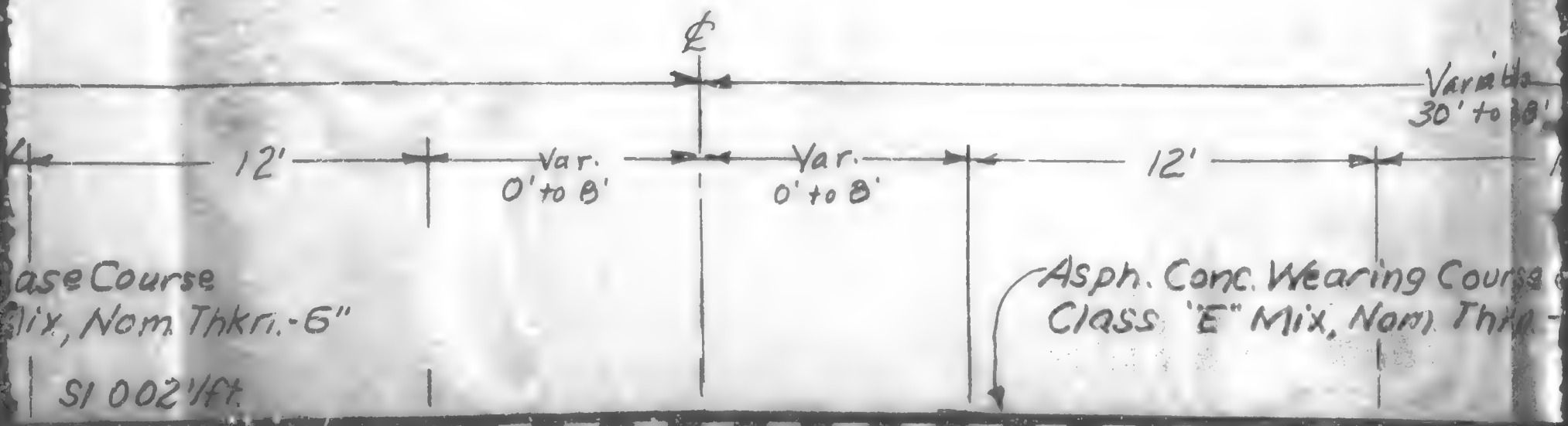
*See other side for factor

NOTE: Use only that portion of this sheet which is applicable
The dimensions "S", "D", "G", "B" (B), shall be expressed in inches when used in calculating A.C. Pavement or Plant-Mix Bituminous Base
All other dimensions shall be expressed in feet or decimals of feet

T Y P I C


Variable
30' - 38'
9'
4'
12'
Asph. Conc. Base Course
Class "B" Mix, Nom T
Profile Grade
SI 002 1/4
SI 4:1 Nom.
SI 6:1
Var. SI 2:1
SI. 002

C A L S E C T



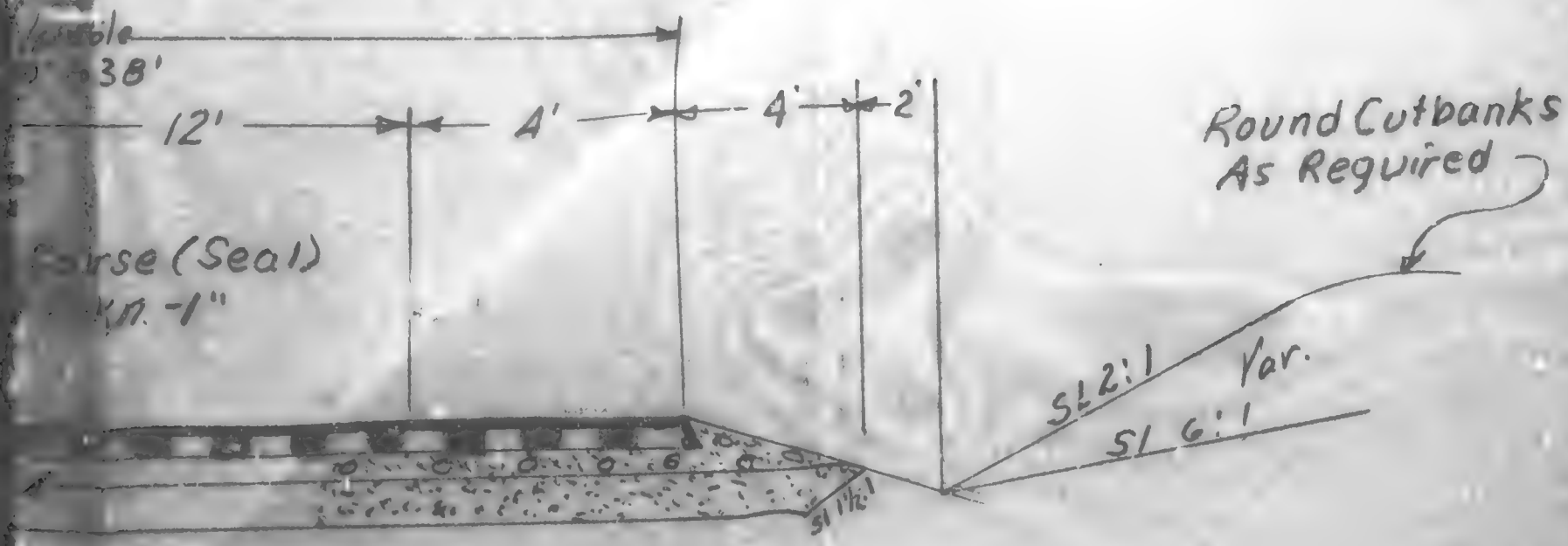
S1.002'/ft.

Sand Subbase
Nom. Thkn -15"

Agg
Nom

STA. 178+00 To STA. 241+52
241+52 To 242+47 (Structure)
242+47 To 284+50

I O N



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8747

9

FORM E-30X

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

DATE Dec. 26, 1974

TO Victor D. Wolfe
Locating Eng'r.
Highway Bldg.

FROM C.O. Fredrickson
By W.R. Fretwell

SUBJECT South Unit Astoria--Camp Rilea
[redacted] Clatsop Co.

On thursday morning a meeting was held in the Region office by C.O. Fredrickson, T.W. Litchfield, F.W. Yarbrough and W.R. Fretwell, relative to the South Unit of the Astoria--Camp Rilea section. In view of the need to downscope our projects we discussed the aspects of surcharging the foundation rather than sub-excavating.

In checking with Elden Everton, District Engineer at Astoria, regarding the maintenance history of the North Unit of the project, we found that some surface warping had taken place southerly of the Causeway over the past 10 years but the associated maintenance costs have been nil.

We feel that under the circumstances downscoping the South Unit by surcharging the foundation is acceptable to us. We were all agreed that some differential settlement will occur at various areas throughout the project but likely not of a magnitude that we can't live with. We feel that provisions should be made for the placement of a final wearing surface consting of a 2" A.C. at a future date.

RECEIVED
DEC 27 1974
LOCATION SECTION

C.O. Fredrickson
Region Engineer

REFERRED TO Versteeg
By Location Engineer
cc Wills

By W.R. Fretwell
Region Geologist

REFERRED TO VBT:COE:gj

Board ____ Reed ____
Cole ____ Semple ____
Fikso ____ Watson ____
Hager ____ Wolfe ____
Return Discuss Do File Copy Due ____
BY FINAL DESIGN ENGINEER

Versteeg ✓
A. Olsen ____
Terpin ✓
Scott ____
Swenson ____
R. Olsen ____
Trout ____

RECEIVED
1975
ROAD DESIGN SECTION

Reg'l to Reply ☐
Requires Approval ☐
Receiver Keep ☐
Other ____

8949

December 13, 1974

Mr. Hiriam C. Johnson
Clatsop County Commission
Clatsop County Courthouse
Astoria, OR 97103

Dear Hiriam:

I have discussed with Cecil Head, (378-6526) of the Commission and Staff Services Section of the Department of Transportation the possibility of agenda time on the next Transportation Commission meeting for your local delegation. I explained that the purpose of the request was to discuss the transportational aspects of the AMAX construction.

I was assured by Mr. Head that time could be reserved, but that the specific meeting date would not be determined until December 18, 1974. The probability is that the Commission will meet sometime late in January, 1975, (maybe 22nd or 29th).

In any event, he requested that you address a letter to the Commission, Room 121, State Highway Building, Salem, OR 97310, requesting the time and indicating the topic and people who will attend.

If you will take that action, it will help keep the wheels spinning. Please keep me informed of your action, and if I can be of any help, please call.

Sincerely,

Floyd Shelton
Transportation Planner (Ports)

bc: Cecil Head

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

FILE: 4-1454

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

December 11, 1974

FROM: Gerald W. Wimer
REGION CONSTRUCTION ENGINEER

SUBJECT: S. Unit Astoria-Camp Rilea
Oregon Coast Highway

TO: E. S. Hunter
ASSISTANT STATE HIGHWAY ENGINEER

On Friday, December 6, 1974, Ronald Schaadt and Floyd Shelton both of the ODOT Planning Section and I met with officials of AMAX, Warrenton, Clatsop County, Port of Astoria, and other interested parties including two newspaper men. A verbal report was made to you the same day. Written minutes by Mr. Schaadt are attached.

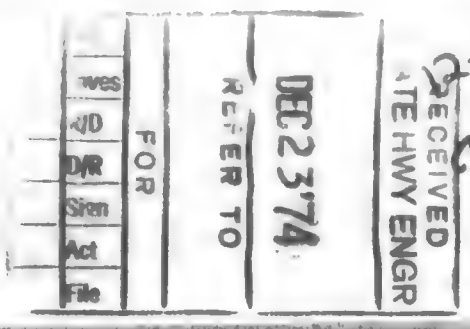
Concern was expressed that this project doesn't show in the 6-year program until 1979. Local officials thought it had been promised previously. They also asked for an interchange at Dolphin Road. It was explained, such had been studied and deemed unnecessary.

Clatsop County Commissioner, Hiram C. Johnson asked that an arrangement be made for he and other local people to meet with the Transportation Commission at their January meeting. Mr. Schaadt is arranging for this. Mr. Johnson also planned to follow-up within the framework of the 6-year program review. That contact would be with this office.

You asked for a chronological review and particularly if any promises had been made to construct the project. Resident Engineer, Loren A. Weber has made such a chronology for his part of the survey which is most of the survey work that has been done since construction of the north unit. His December 9, 1974, report and its attachments are also attached. Most important of these attachments is an August 16, 1971, letter from then Assistant State Highway Engineer, F. B. Klaboe to Warrenton Auditor and Police Judge, E. R. Baldwin indicating "Our objective at the present time is to contract construction in the spring of 1972 with completion by the fall of 1973."

Part of the present hold-up on this project is design questions. Just how much downscoping should be done? This office's December 2, 1974, recommendation for a downscoped 4 lane section is attached.

GWW/elk
Attachs.
cc: Victor Wolfe
Hal Versteeg



12-23-74 K/abol
cc
E/H

NOTED
F. B. KLABOE

FORM 81-734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: 4-1454

Salem, Ore.

Dec.9, 1974

FROM: Loren A. Weber
RESIDENT ENGINEER

TO: Gerald Wimer
REGIONAL CONST. ENGINEER

SUBJECT: Chronology of Events-Survey & R/W
South Unit-Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

As per your request, I have done some checking through my records regarding the history of the subject project.

My first association was in April of 1966 when I was instructed to retrace the L line which had originally been started in 1961. The purpose of the operation at this time was to stake Right of Way so purchases could begin with a crew of agents from Portland beginning work during the week of April 29 and continuing until sometime in 1967.

The next time I became involved in the project was late 1968 when North West Aluminum told us they planned to occupy the land where our L line was located.
In December, I met with Mr. Hare of Parsens-Jurdan to determine just where we had to be to clear their proposed development and in early January 1969, we began the actual Field Survey on the L2 line. This work continued with a minor break or two into May of 1969 when we had completed our work.
At the same time Mr. Hare & Mr. Webb came to my office and informed us we weren't far enough away to give them their required clearance.
Work was suspended until October 1969 when we began work on the L3 line with this being completed in December 1969.

In August 1970 Mr. Porter wrote the attorneys for Amax regarding their decision to return to the original L line with this being followed immediately by a letter from Mr. Klaboe to Mr. Barbee with instructions to return to the original line and re-start R/W on this basis.

Finally regarding promises made with respect to Construction
A letter written by Mr, Wills for Mr. Porter and signed by Mr. Wolfe was sent to Mr. Baldwin of the City of Warrenton.
This indicated our objective as planning to construct the project during the 1972-73 season.

The status of the Right of Way is generally the original Strip of land from the North End to the Rail Road has been purchased and the property on the Easterly side has been purchased from the Rail Road to the Camp Rilea connection and some on the right through the same area.
To the best of my knowledge none has been taken South of the Camp Rilea Road. Still to be negotiated is a Strip, generally on both sides from the North End to the Rail Road. The Frontage Road in the right from Columbia Beach Road to Perkins Road and a few parcels on the West between Perkins Road and Camp Rilea.
A chronological list of our work, letters & R/W File numbers yet to be dealt with are attached.

CHRONOLOGY OF EVENTS

WEEKLY REPORTS:

4/22/66 - Began line retracement for R/W staking widened Strips.

4/29/66 - Portland R/W in area during the week.

5/6/66 - R/W staking completed.

12/9/66 - Survey work to pick up some items for Don Trout(Job Extensions, cross-sections,) See letter of 11/16/66.

12/30/66 - Job completed.

2/23/68 - Initial contact made with Mr. Hare of Parsens-Jurdan, the Engineers for Northwest Aluminum.

12/30/68 - Authority for Survey to revise alignment for Northwest Aluminum.

12/27/68- I made a careful check with Mr. Hare regarding just how far we were going to have to move our line.

1/11/69- Field Work began on L2 to go around the Northwest Aluminum.

1/17/69- Work suspended for a time due to work needed elsewhere.

2/21/69- Work resumed.

2/28/69- 3 Survey Crews working on re-alignment.

5/16/69- L2 completed & ready to send to Salem. Mr. Hare indicated they were going to need additional room beyond our L2 line.

5/24/69- Work suspended pending decision on new alignment.

10/17/69- Work began on L3 with emphasis on a R/W line so the Rail Road people could determine where they could be.

11/14/69- R/W map sent in.

12/19/69- Survey sent in to Region.

CHRONOLOGY OF EVENTS

LETTERS:

11/16/66 - Letter from Don Trout asking for Cross Sections Extensions plus job extensions to the South to include Channelization app ½ miles.

5/13/68 - Letter regarding my meeting with Mr. Hare to determine how far we would have to move to clear their proposed work.

8/27/70 - Letter from Mr. Porter to Attorney for Amax regarding their decision to return to the original L line.

8/28/70 - Letter from Mr. Klaboe to Mr. Barbee talking about going back to purchase Right of Way on original line.

8/10/71 - Letter from Mr. Briggs of Amax to Mr. Klaboe setting forth details of agreement between the State & themselves.

8/16/71 - Letter from Mr. Porter-Wolfe-Klaboe to Mr. Baldwin of the City of Warrenton regarding a Right of Way map which didn't shew the current Right of Way widths for the Standards Contemplated.
Also this same letter indicates our objective as planning construction for the 72-73 season.

8/23/71 - Letter from Mr. Boyd is Rod Henry regarding R/W purchase South of the Rail Road.

According to the parcels marked out on the Right of Way map, we have yet to acquire some additional strips on the North end of the project specifically 6 as follows:

File No. 39377 - Bellcom Resources Co.
47912 - Semmes
44036 - J. & R. Green
44035 - Wheaton
44037 - R & P Williamson
44034 - H. & D. Willmer

There are 2 long Strips of additional land to be purchased (one on each side) from roughly Station 188 to 255 the latter being just Northerly from the Rail Road Crossing.
These are covered by File numbers:

47913 - Clatsop County
39377 - BellCom Resources Co.
44043 - Stephens
35423 - Amax

South of the Rail Road-Easterly Side- there are a few namely:

35445 - Mclean
47915 - Williamson (additional)
41286 - Ness- Southerly from Camp Rilea Road.
41287 - West- " " " " "
41289 - Tagg- " " " " "
41288 - Warrenton Lumber Co.

On the Westerly side between Columbia Beach & Perkins Roads.
The following:

47914 - Herd
35435 - Keller
35438 - Mueller
35439 - Rouwens
35441 - Hendrickson
35444 - Demmel
35446 - Ferguson

South of Perkins Road. Part of the land has been purchased.
The areas not allready owned are:

35445 - Mclean
41280 - Andros
41282 - Hayes
41283 - First Presbyterian Church
41284 - Hitchman

Warrenton, Or.
December 4, 1974

Department of Transportation
State of Oregon

Gentlemen::

It is the Warrenton Planning Commission's belief that a potential transportation hazard could exist in the area where the proposed Amax plant and a shopping center are intending to locate.

We believe that the increased traffic volume will greatly overload the present intersection of Highway 101 and Marlin Avenue.

We suggest that an overpass system might be considered as a means of solving the problem.

We further suggest that whatever means of handling transportation problems is dedided upon, it should be implemented concurrently with the opening of any significant establishment in the affected area.

WARRENTON PLANNING COMMISSION

Fred Andrus

Fred Andrus
Chairman

the first test of public opinion of the product which will be marketed under the label of Pacific Shrimp ... ight.

If the reaction Friday was any indication, the product will be a success.

Dr. Jerry Babbitt, the scientist at the OSU Seafoods Lab who headed the research project that led to the product, said today it was an outgrowth of continuing efforts to utilize better existing fishery resources — especially bottom fish.

Babbitt also said the product will benefit Pacific Shrimp and area fishermen.

Secondary processing will allow Kenny Berg's fish processing plant to operate more on a year-round basis and that will increase demand for more and different kinds of fish, he explained.

What's more, the patty will be an entirely new product that will open up new channels for fish sales, Babbitt added.

Work still must be done to line up effective distribution channels for the product, but so far two restaurants on the North Coast — the Sunset Empire Room and The Whaler in Cannon Beach — are serving the dish.

Another restaurant has been approached in the Portland area, said Van Horn who is helping Berg set up a distribution system.

Van Horn also assisted in testing of the product. He prepared a 200-pound batch of patties that were served at the

Rockefeller confirmation seems sure

WASHINGTON (AP) — The Senate opened debate on Nelson A. Rockefeller's vice presidential nomination today as Democratic and Republican leaders predicted only a few members will vote against him.

Assistant Democratic Leader Robert C. Byrd, of West Virginia said he believes the former New York governor will be confirmed by an overwhelming margin in the vote Tuesday afternoon.

Byrd, a member of the Senate Rules Committee which held hearings on the nomination and voted unanimously to recommend approval, said he would vote for it, even though a bit reluctantly.

Byrd said he believes Rockefeller did not answer all questions sufficiently and said he still has questions regarding potential conflict of interest issues.

WASHINGTON (AP) — P... ic hearings are going to provide a forum for business and consumer groups to give their ideas on U.S. energy policy as President Ford's advisers prepared to huddle at Camp David to weigh some strict fuel-saving proposals.

Dozens of witnesses at the three-day hearings beginning today were scheduled to comment on the "Project Independence" study submitted la month by the Federal Energy A ministration and to discuss the compl issues involved with energy policie

Consumer concerns and busine concerns were the topics at today hearings.

The hearings precede a policy sessic of the cabinet-level Energy Resourc Council.

12/9/74 Monday Daily Astorian

Highway 10

By STEVE BAGWELL
Of The Daily Astorian

WARRENTON—A major misunderstanding between the State Highway Division and North Coast officials surfaced Friday at a meeting on the expected transportation impact of the proposed AMAX aluminum plant.

Local officials thought construction of the plant would lead to prompt improvement of Highway 101 between Camp Rilea and Astoria.

Not so said Highway Division representatives. Widening and realignment of the road is set for 1979 at the earliest, whether the plant is built or not.

Clatsop County Commissioners Dave Megrath, Lyle Ordway and Hiram Johnson protested. So did Warrenton City Manager Dick Baldwin.

They said they had been led to believe the state would take steps to reconstruct Highway 101 as soon as it was certain the aluminum plant was in the works.

Baldwin said there had been a letter to that effect from State Transportation Commission Chairman Glenn Jackson.

Dept. of Transportation representative Ron Schaadt said he had no knowledge of such a commitment. He said the department recently completed a six-year plan of highway improvement for the state listing the 101 project for 1979.

Schaadt said the plan will be reviewed annually and the $5.5 million project might be moved forward during the review process. But he said if it was, $5.5 million worth of other projects would have to be moved back because the department only has so much money to work with.

He didn't hold out much hope of an imminent priority change for the 101 project.

Asked by Megrath how soon work could start if funding wasn't a problem, Schaadt replied, "1975." He explained that virtually all of the right-of-way h been acquired and project planning w complete.

Megrath then asked if a compromi was possible. He suggested the cou might be willing to settle for less th the four-lane, fully divided, fu shouldered highway the state h planned if the state could promise move up the project.

Schaadt said that was a possibili But he said even a three-lane roadw would be costly, other projects Oregon still would have to be mo back and action still probably wo have to wait until the next ann review of the six year plan.

The officials said they didn't th that was good enough. They were joi by Clatsop-Tillamook tergovernmental Council Director Ja Lesch, Clatsop County Roadmas John Dooley and AMAX Proj Manager Jim Howarth in urging st reconsideration.

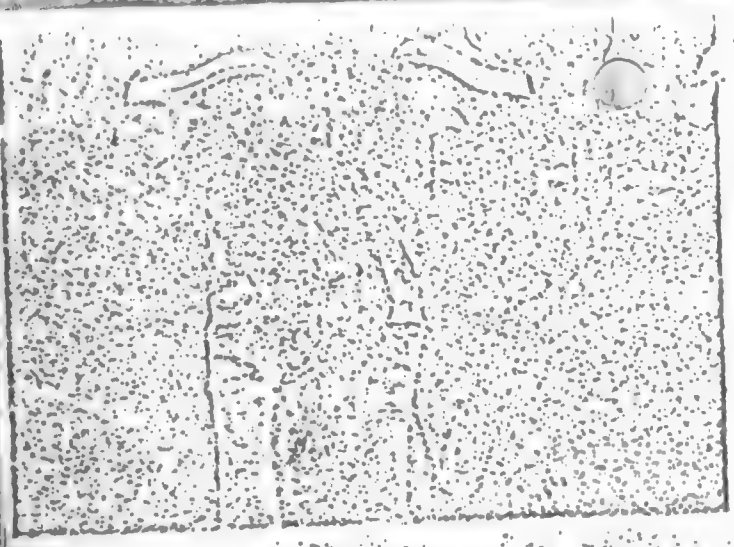
Johnson said the construction AMAX would lead to an "emerge situation" for Highway 101. Bald said "intolerable" was a better w for it, adding he was "non plussed" the state attitude.

Megrath said he was equa "disturbed" by it, noting increa traffic would cause serious congesti

Dooley said, "We've been hearing years that you would realign 101 wi the aluminum plant issue was settle Howarth said, "I understood it h been promised."

Megrath said he thought local ficials should "implore the state dramatically accelerate 101 reali ment." Johnson said it should be d at the first State Transportat Commission meeting of 1975 after new appointees of the new governor seated.

The local officials present agre that was the best course of action contingent said they will appear at January meeting.



designate the trail as a national historic trail.

The were met at the end of the e—at the salt cairn in Seaside—by Dr. Edward Harvey of Astoria who gave a short talk about the importance of the Lewis and Clark exploration.

Scouts now are planning to assist Harvey, a member of Oregon's Lewis and Clark Trail Committee, properly mark the trail which goes over Tillamook Head to Ecola State Park, a trail Clark also followed.

Heading up the hike Saturday and Sunday were Jim Cato and Bruce Cottam. Scouts from Astoria, Warrenton, Lewis and Clark, Gearhart, Knappa, Westport, Seaside and Portland participated.

The hike started at Fort Clatsop, where park rangers were putting on a living history demonstration, including firing of a musket. Along the way, hikers saw an eagle tree with a bald eagle perched on it.

State: Camp Rilea leg long way off

State representatives and local officials saw eye-to-eye on most other expected highway problems. They also appeared to agree on most issues involving trail, bus, boat and air traffic impacts.

Everyone said a number of intersections in the vicinity of the plant, including Marlin-101, Dolphin-101, Marlin-old 101 and 101-old 101 would need work if the plant was built.

However, Warrenton Planning Commission Chairman Fred Andrus questioned whether the proposed left-turn lane at the Marlin-101 intersection was enough.

He said a shopping center is planned for one side of the highway there in addition to the aluminum plant on the other and suggested an overpass might be more appropriate.

The state representatives didn't comment directly on the request.

Dooley noted two county roads, Dolphin Avenue and Perkins Road, would have to be improved. Though Howarth assured him they wouldn't be receiving heavy truck traffic during construction, Dooley said their oil mat surfaces couldn't stand anything heavier than auto traffic.

Dooley also said other county roads might have to be upgraded, but added he won't know which ones until it is clearer where construction workers and plant workers will be living.

Howarth said AMAX is conducting a housing survey and should have some answers by the end of January.

He said AMAX may be forced to build a mobile home park of its own if the survey shows that's the only way needs could be met, but said he hoped the "free market system" would take care of them.

Schaadt noted the state would be leaving the present Warrenton section of Highway 101 in place after realignment to aid in worker transportation. Local officials said that would help solve congestion problems, but certainly wasn't a substitute for 101 upgrading and other road improvement.

Turning to expected rail impacts of AMAX, Schaadt said Burlington-Northern officers had been unable to attend the confab, but would be meeting with Dept. of Transportation officials later this month in Salem to talk over plans.

He said the railroad definitely was planning to replace the Youngs Bay span with a rail bridge capable of supporting greater loads.

Port of Astoria Traffic Manager Gail Packard confirmed that. He said Burlington-Northern has a used bridge to put in and probably will be storing it at the port until it can begin construction of new rail facilities.

Packard said the railroad intends to have the new bridge in before aluminum plant construction progresses very far.

Howarth noted his firm plans to transport nearly all of its construction materials by rail.

He said AMAX also hopes to transport its bauxite and alumina by rail, though it hasn't reached rate agreements with Burlington-Northern and still is considering truck transport of the finished product to the port's Pier 3.

Howarth said that would mean daily movement of 57 trucks to and from port docks. Packard said that wouldn't constitute a problem.

Burlington-Northern already has begun to lay plans to improve its track to the North Coast. It also intends to replace its rail bridge over the

Continued to Page 2

Sunday marks 52nd anniversary of fire

Sunday was the 52nd anniversary of the 1922 fire that destroyed Astoria's business district, causing losses of millions of dollars by wiping out 17 blocks, mostly of mercantile establishments.

It was one of the worst fire losses in the history of Oregon, although there was no loss of life directly attributable to the blaze.

Cause of the fire remains a mystery. It broke out during the night and was not finally extinguished until the following afternoon.

Reconstruction of the devastated business district was substantially completed within two years.

Downtown Astoria in those days was largely built of frame structures on wooden pilings. Streets were also raised on pilings, and the open passageways under the streets were pathways by which the fire spread swiftly through the area, making it almost impossible to fight the fire.

In rebuilding the city, streets were made of concrete, eliminating the risk of a repetition of the 1922 disaster.

101 / Camp Rilea leg long way off

Continued from Page 1

Skipanon River in Warrenton before the state replaces the highway bridge there, Packard said.

Schaadt said of the four alternate routes for a rail spur into the plant, the state Highway Division representatives favor the one designated which passes near the airport and enters the plant from the northeast. He noted it would require only two new rail crossings, an elevated crossing of the state's old Highway 101 and a grade crossing of the Clatsop Airport access road.

Howarth said it would simplify rail traffic and cut Burlington-Northern costs, hence AMAX rates. It also would lessen the impact on Warrenton, he and Baldwin noted.

Johnson said that if route D is selected, planners should consider extending the line on down to the main line to Seaside, making the railroad trackage into Warrenton a spur instead of the AMAX access trackage. Baldwin said Warrenton would see that as a plus.

The only problem with that preferred route appears to be its proximity to the airport. But Packard said he had already contacted the Federal Aviation Administration about it and it appeared the matter could be worked out.

Ordway and Megrath raised the possibility of making the airport road crossing an elevated one like the old 101 crossing and that possibility apparently will be considered by Burlington-Northern.

In its report to the Dept. of Environmental Quality, the Dept. of Transportation suggested the improvement of rail lines into the area because of aluminum plant construction would enhance greatly the possibility of getting recreational passenger service begun on the Portland-Seaside rail line, but that didn't get a great deal of attention at the meeting.

Much more attention was paid to the possibility, also suggested by transportation planners, that bus service would be improved on the North Coast.

Though Howarth said AMAX wasn't interested in getting into the bus business, he said the company does have a stake in improved mass transit and has had some discussions with local people involved in it.

There is a possibility Greyhound could add a Warrenton stop, that TBR Transit of Astoria could begin Warrenton-AMAX service or that another solution to increased commuter needs could be worked out, all agreed.

Boat traffic also would be affected by aluminum plant plans if local officials are able to persuade the Coast Guard to restrict openings of the Youngs Bay highway and rail bridges during peak traffic hours, it was noted.

Most officials seemed to believe restrictions were desirable and possible to achieve during morning and afternoon rush hours.

Air traffic only would be affected if the preferred rail route is adopted and a spur built adjacent to the Clatsop County Airport. In that event, the Federal Aviation Administration and the airport operator, the Port of Astoria, would have to plan for runway expansion in coordination with rail construction.

Except for the hassle over Highway 101 work, the affair seemed to be fruitful.

A large amount of information was passed and promised, a lot of productive brainstorming took place and everyone seemed to leave with a better idea of what construction of the proposed plant would mean in the way of transportation needs.

Before the meeting broke up, Howarth mentioned the possibility an aluminum extrusion plant also may be built in this area, adding to demands on transportation networks.

But planning for such a plant somewhere in Oregon has hardly begun and there is no indication the North Coast has an edge over other areas in getting it.

Schedule of Public Meetings

MONDAY

Jewell School Board, 8 p.m., Jewell School.

Warrenton-Hammond School Board, 8 p.m., Warrenton High School library.

Neahkahnie School Board, 8 p.m., district offices in Rockaway.

Ocean Beach School Board, 8 p.m., Ilwaco High School library.

Seaside City Council, 8 p.m., Seaside City Hall.

TUESDAY

Astoria School Board, 7:30 p.m., district offices.

Seaside School Board, 7:30 p.m., district offices.

Lewis and Clark School Board, 7:30 p.m., Lewis and Clark School.

Clatsop County Commission, 7:30 p.m., public hearing on college fine arts complex site, county courthouse.

Clatsop-Tillamook Intergovernmental Council, 11:30 p.m., Tolovana Inn Restaurant, Cannon Beach.

Astoria Planning Commission, 7 p.m., city council chambers, city hall.

Astoria Traffic Safety Committee, 7:30 p.m., city manager's office, city hall.

Clatsop Parks and Recreation Committee, 7:30 p.m., District Court, Clatsop County Courthouse.

Port of Astoria Commission, 7:30 p.m., port commission meeting room, port offices.

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REGION 2 ENGINEER
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DEC 2 1974
4-1454
RE RCE RME RYE ROE
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Salem, Oregon
December 2, 1974

South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway

Gerald W. Wimer ORIGINAL SIGNED BY GERALD WIMER
REGION CONSTRUCTION ENGINEER

Hal Versteeg
ROAD DESIGN ENGINEER

This office certainly concurs in the principle of downscoping. Every effort should be made to reduce construction costs and extend the length of a practical design.

This office has previously gone on record of eliminating the continuous median for the subject project. We do, however, question cutting to your proposed two lanes.

With two lanes, the areas available for passing would become:

DIRECTION	STATION LIMITS	TOTAL LENGTH
Southbound	188+50 to 207	1850 feet
	232 to 263	3100 feet
Northbound	198+50 to 217	1800 feet
	242 to 264	2200 feet

Of the two passing opportunities each direction the northerly one in each instance is short and encumbered with a vertical curve. Northerly of the project, the proposed Marlin Avenue Intersection will reduce the present passing opportunity. At the southend of the project, the new alignment intersects a tangent on the existing highway cutting that passing opportunity.

A reduced four lane section consisting of 4 foot shoulders, 12 foot lanes, and refuges where necessary is estimated to cost $734,000 or $93,000 more than your two lane proposal. It is also $241,000 less than the previous four lane plan. This reduced four lane plan certainly fits the concept of downscoping and is recommended by this office. An estimate of cost and typical section for this minimum four lane proposal is attached.

The recommended reduced 4 lane section is in keeping with the 4 lane that has been done by State Maintenance Forces northerly of Gearhart. No median and narrow shoulders were utilized in the State Force construction. This will leave an approximate 4 mile gap which is being worked on by State Forces as time and funds permit.

GWW/elk
Attach.

4-1454

REGION 2 ENGINEER
RECEIVED
AUG 17 1971
RE | RCE | RME | RTE | ROE
ULE | GEO | TA | FILE

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • • • SALEM, OREGON • • • 97310

August 16, 1971

Mr. E. R. Baldwin
Auditor & Police Judge
City of Warrenton
Post Office Box 250
Warrenton, Oregon 97146

Dear Mr. Baldwin:

Reference is made to your letter of August 9 in which you indicated a need for a right-of-way map of the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway.

The enclosed right-of-way map, file 8B-26-20, shows an L line and an L^3 line. Recent discussion with AMAX has resulted in a decision to proceed with the L line which is the original location. As you probably know, the N. W. Aluminum Company had requested a relocation to the L^3 line which has now been abandoned.

The right-of-way lines are not correct as shown since the limits were determined on obsolete standards. Redesign to current four-lane needs will require additional right-of-way which will be determined in the near future.

Our objective at the present time is to contract construction in the spring of 1972 with completion by the fall of 1973.

If we may be of further service, please advise.

Very truly yours,

R. L. Porter
State Highway Engineer

By ORIGINAL SIGNED
VICTOR D. WOLFE

F. B. Klaboe
Assistant State Highway Engineer

cc: R. L. Porter
Tom Edwards
F. L. Hall
J. B. Boyd
T. W. Litchfield
Frank Terpin

GCW:jf srb

CC: Weber w/attach 8-18-71 CC EVERTON 8-19-71

CITY OF WARRENTON

WARRENTON, OREGON
97146

HAROLD C. GRAMSON
MAYOR

EMERSON R. BALDWIN
AUDITOR AND POLICE JUDGE

P. O. Box 250
TELEPHONE 861-2233

9 August 1971

Edwards
Klaber - Ugaley

State Highway Commission
State Highway Building
Salem - OREGON - 97310

ATTN: Roderick L. Porter, Oregon State Highway Engineer

Gentlemen:

We have noted by the local press that the Smith Point to Camp Rilea correction of Highway 101 is to be called for bids early in the year 1972.

Inasmuch as the city has relocated a portion of its water system in the north end of the projected improvement, the city would appreciate a location map if one is available, showing the rights-of-way and affected properties.

Sincerely,

CITY OF WARRENTON

E. R. Baldwin

E. R. Baldwin
Auditor & Police Judge

ERB:jb

T. W. Lincoln
Frank Terpin

cc:jf srv

RECEIVED
AUG 10 1971
OFFICE OF
STATE HIGHWAY ENGINEER

NOTE:
F. D. KLABER

8949

9

Salem, Oregon
November 18, 1974

ORIGINAL SIGNED BY
J. H. VERSTEEG

J. H. Versteeg
Road Design Engineer

C. O. Fredrickson
Region 2 Engineer

Astoria-Camp Rilea Section,
South Unit
Oregon Coast Highway
Clatsop County

A review of this project indicates that a two lane highway will provide adequate service to the public up to the design year of 1994. Our surfacing estimate for the two lane proposal is $641,000 and for the original four lane proposal is $978,000. Based on a possible savings of $337,000 in surfacing costs we propose to construct a two lane, 44' section at this location.

Attached is our one copy of this proposed plan along with data on cost estimates and capacity allowances. Please review and advise if you concur in this proposal.

JHV:jh
cc: E. S. Hunter
Victor D. Wolfe

Versteeg
[illegible]
Scott
[illegible]
R. Olson
Trout

RECEIVED
NOV 18 1974
ROAD DESIGN SECTION

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Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up ___/___/___
Other

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

November 13, 1974

FROM: Frank E. Terpin F.E.T.
Final Design Engineer

TO: MEMORANDUM TO THE FILES

SUBJECT: Astoria-Camp Rilea Section,
South Unit
Oregon Coast Highway
Clatsop County

Comparative surfacing cost estimates for a four lane section with a 16 foot median and a two lane section with channelized intersections have been prepared. This project has a bikeway located on the highway shoulders.

This surfacing estimate for four 12 foot lanes, a 16 foot median and 10 foot shoulders with 6:1 rock slopes from Sta. 168+00 (M.P. 9.10) to Sta. 317+00 (M.P. 11.86) is $980,000.

The surfacing estimate for two 12 foot lanes, 10 foot shoulders with 4:1 rock slopes and four channelized intersections between the same limits is $645,000. The channelized intersections are at the old highway connection (north end) Sta. 179+00, at Dolphin Avenue Sta. 224+00, at Perkins Road Sta. 282+00 and at Camp Rilea Road Sta. 303+00.

A structure will be required for the Skipanon River crossing at Sta. 243+00. Comparative estimates have not been made for this structure.

Rather extensive embankment foundation excavation will be required; for the four lane section it amounted to approximately 150,000 cubic yards. This excavation should probably be made and the embankment constructed to four lane width even though only two lanes are paved.

FET:we

/ Versteeg
A. Olson
Terpin
Scott
Swanson
R. Olson
Trout

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NOV 13 1974
ROAD DESIGN SECTION

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Other

SOUTH UNIT ASTORIA - CAMP RILEA SECTION

M.P. 9.10 to M.P. 11.86

11/8/74

Capacity for new 2-lane section
2-12 foot lanes 10 foot shoulders
Level terrain, 100% PSD

Design Capacity = 1070 (1.0)(0.94) = 1000 vph
1000/14.5% = 6900 ADT

Possible Capacity = 1500 (1.0)(0.94) = 1410 vph
1410/14.5% = 9700 ADT

Present and Projected Volumes on this Segment of Highway
1974 ADT = 4900
1994 ADT = 9300

Design Capacity of 6900 will allow operating speeds of 50 to 60 mph
Possible Capacity of 9700 is in unstable flow, operating in the range from 30-35 mph
1994 ADT of 9300 ADT or 1350 vph would be at the lower range of Service level "C", operating speeds would be reduced to 40 to 45 mph

84' Section

OREGON STATE HIGHWAY DIVISION
QUANTITY SUMMARY & COST ESTIMATE

Sheet _____ of _____ Sheets

Section Astoria - Jct. Rte. 1 Unit _____
Highway _____ County Clatsop Prefix _____
Length _____ Designer _____ Draftsman _____ Date _____

Grading and Surfacing Items

Item	Unit	Net	10% Allow	Gross	Price	Amount
Aggregate Base	Ton	50,978			4 50	$ 229,401.00
Asph. Conc. Mixture	Ton	54,181			7 25	392,812.25
Asph. Cement In Mix	Ton	3,560			100 00	356,000.00

Total $978,213.25

44' Section

OREGON STATE HIGHWAY DIVISION
QUANTITY SUMMARY & COST ESTIMATE

Sheet _____ of _____ Sheets

Section Astoria - Cannon Beach Unit _____
Highway Oregon Coast County Clatsop Prefix _____
Length _____ Designer RH Draftsman _____ Date _____

Grading and Surfacing Items

Item	Unit	Net	10% Allow	Gross	Price	Amount
Aggregate Base	Ton	36,812			4 50	$ 165,654.00
Asph. Conc. Mixture	Ton	34,441			7 25	249,697.25
Asph. Cement In Mix	Ton	2,263			100 00	226,300.00

Total $ 641,651.25

8949

9

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: 4-1454

Salem, Oregon
October 23, 1974

FROM: Gerald W. Wimer
REGION CONSTRUCTION ENGINEER

SUBJECT: South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway

TO: Frank Terpin
FINAL DESIGN ENGINEER

Thank you for your October 16, 1974, letter listing the quantity of materials to be wasted, granular borrow, and surfacing. However, you indicate these are based on an 84 foot section which is being questioned.

It is inappropriate for this office to make arrangements for these quantities of material if they are not what is actually going to be needed. Therefore, it would be appreciated if you would review the design and conclude what it is going to be and what quantities will likely, finally be needed. This office will then make arrangements based on those quantities. Obviously, we will need some lead time.

It is still the recommendation of this office that a 16 foot median is not needed throughout. A 4 foot median would be sufficient except where left turn refuges are needed. In those areas, obviously, the median should be 16 foot.

There has also been some discussion about not 4 laning this section. It should be pointed out maintenance forces have done some narrow 4 laning not too far to the south of this unit. Undoubtedly, they will continue to be pressed to extend the 4 laning northerly. It is obviously less expensive to do the 4 laning in the original construction than to come back and do it on a maintenance widening project.

In any event, we will not pursue finding waste areas and/or material sources until you reconfirm the quantities.

GWW/elk
cc: Victor D. Wolfe

REFERRED TO
Cole — Reed
Eriksen — Sample
Hager — Watson
Return ☐ Forward ☐
Discuss ☐ File ☐
BY FINAL DESIGN ENGINEER

L. Young J
A. Olson
2 Terpin T
Smith
Swenson
R. Olson
Trout

RECEIVED
OCT 24 1974
ROAD DESIGN SECTION

Requires Reply
Requires Approval
Receiver Keep
Do not File
Return To
Bring Up
Other

8949

BU ~~12-1-74~~
~~1-2-75~~
~~1-20-75~~
~~3-3-75~~

FORM B 714.3030

FILE:

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon
October 16, 1974

FROM: Frank E. Terpin
Final Design Engineer

ORIGINAL SIGNED BY FRANK E. TERPIN
FINAL DESIGN ENGINEER

TO: Gerald Wimer
Region 2 Construction Engineer

SUBJECT: South Unit
Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County

In reply to your letter of 9-3-74 to Mr. Wolfe please be advised that as concerns Item #2 the following applies:

a. The embankment foundation excavation required will be made throughout the length of the project. The quantity will amount to approximately 150,000 cubic yards. It will be necessary, therefore, to find an area large enough to accept this amount of waste.

b. As discussed in previous correspondence it was anticipated to acquire the required backfill for the subexcavation from the Tagg property. The quantity required is anticipated to be approximately 200,000 cubic yards. Agreements and approvals will be necessary for this source.

c. The quantity of aggregate in the surfacing is estimated at 105,000 tons. A source for this material will have to be found and the necessary paper work completed.

These quantities are based on the present proposed 84' wide section.

FET:jh
cc: Victor D. Wolfe
C. G. Swenson
Donald L. Trout
Fred Eriksen

8949

BURLINGTON NORTHERN

Engineering Department
1101 Northwest Hoyt St
Portland, Oregon 97207

June 11, 1974

Mr. Dave Astle
Administrator, Railroad Division
Public Utility Commissioner
502 Winter Street, NE
Salem, Oregon 97310

copy in fra 7-12

Dear Mr. Astle:

Please refer to your letter May 21, 1974, in regard to installation of an additional signal at crossing 5A-107.0, near Warrenton.

For the past few years, our management has been seriously considering the abandonment of this line from MP 108.6 to the end of the line at Seaside. The original plans for the AMAX Aluminum Plant called for their switch to be located at our MP 108.5. AMAX has now revised their plans and it appears their switch will be located near our MP 104. This plan would permit the north limit of proposed abandonment to be extended northerly past the 5A-1070 crossing.

The last evaluation for possible abandonment showed the proposal to be a borderline case since maintenance costs have been nominal. We are now in a position where we will be faced with considerable maintenance expense in 1975 for tie renewals, trestle repairs, etc., and it is very possible that these additional costs will tip the scale in favor of abandonment. It appears that a definite decision will be made in the near future, and I am sure you will agree that we not consider any additional expense for additional signals at this time.

Very truly yours,

Note: MP 104.3 is X'ing of US101 & BD R.R @ Whiskeytown (Hwy. M.P. 6.47)

JSC

H. F. MOY
Director, Engineering

LBK/pak

cc- Mr. J. E. Chidsey

xc: P.L. Swanson D.G. Talbot
V.D. Wolfe
L.B. Boyd

Copy to Ballam 6-13-74

RECEIVED
JUN 13 1974
Office of Assistant State Highway Engineer

NOTED
R. L. SCHROEDER

NOTED
J. E. CHIDSEY

State of Oregon
OFFICE OF THE GOVERNOR

Contact: Ron Schmidt
Administrative Assistant (378-3121)

FRIDAY
10/19/73

GOVERNOR ASKS STRICT POLLUTION CONTROLS IF AMAX PLANT BUILT

Governor Tom McCall says the proposed AMAX Aluminum Co. plant at Warrenton should be required to abide by the most strict environmental standards in the world. But he added that he hopes the plant is not built because of the heavy demand it would make on the electricity supply.

McCall previously supported construction of the plant, but said he has changed his mind.

The governor was asked by Gary Conkling, news editor of "The Astorian" newspaper in Astoria, for comment on the proposed plant and the environmental standards that might be set for it. The governor responded on Wednesday.

McCall wrote, "We need jobs in Oregon, and that's one of the reasons I've urged everyone to reduce energy use by 10 per cent. We all should sacrifice a little so that no one must sacrifice totally.

"Yet I question that we can make the kinds of sacrifices and develop enough new sources of energy in this decade to sustain rational growth. So I have withdrawn my long-standing personal support for development of the AMAX project. Faced with an energy crisis that will not be overcome for many years, we cannot invite industry that consumes electricity far in excess of those with equal or greater job-producing potential....We cannot effectively push for an energy conservation ethic while we're funneling huge blocks of power to comparatively inefficient uses."

-more-

McCall noted that the Bonneville Power Administration entered into a contract in 1966 to deliver electricity to the Northwest Aluminum Co., the predecessor of AMAX, and that the contract is still valid. AMAX is a subsidiary of American Metal Climax, Inc.

Since then, he said, several factors have combined to result in a shortage of electricity in the Pacific Northwest -- factors that couldn't have been foreseen in 1966.

He said, "Bonneville couldn't have known in 1966 that streamflows in the Pacific Northwest would fall to near-record lows in 1973. BPA couldn't have known that Congress would not sufficiently finance hydroelectric projects, or that the Federal Office of Management and Budget would impound some of the funds that were appropriated, or that the Trojan plant would go into operation a year behind schedule."

The governor said, "This background is essential to an understanding of why BPA is committed to AMAX, and why the commitment may not seem, now, to have been wise. Nevertheless, it was made."

McCall also said, "The AMAX plant -- if it is built -- must be the environmentally cleanest aluminum producer in the world. If it is not, it will not operate in Oregon."

The Department of Environmental Quality is considering making a recommendation that aluminum plants not be permitted to emit into the air more than one pound of fluoride for each ton of production. Industry has said the standard isn't technologically feasible.

But the governor said "the fact is that we've set tough standards before that were said to be beyond technology, and they were met anyway. In my view, the unachievable can be achieved, but only if we demand it."

Noted
ROBERT E. WHIPPS

-30-

RECEIVED
OCT 19 1973
OFFICE OF
DIRECTOR of TRANSPORTATION

OFFICE OF THE GOVERNOR
STATE CAPITOL
SALEM 97310

October 17, 1973

Mr. Gary Conkling
The Daily Astorian
949 Exchange
Astoria, Oregon 97103

Dear Gary:

Your call requesting from me a statement concerning my position on the AMAX plant proposed for Warrenton comes as no surprise. There has been considerable open wondering about the rationale for construction of another aluminum plant in an area facing a long-term energy crisis. Your question gives me the opportunity to put the situation in perspective.

Construction of an aluminum plant at Warrenton has been looming on the horizon since 1966, before I became Governor. In that year, the Bonneville Power Administration signed a contract agreeing to deliver electricity to the Northwest Aluminum Co. American Metal Climax -- AMAX -- subsequently assumed the contract, and it remains valid.

Northwest Aluminum and AMAX have received considerable encouragement in the past. Location of the plant at Warrenton offered several advantages -- an increase in the Clatsop County tax base and an increase in the number of jobs were among them. It also would be away from the Willamette Valley, in keeping with our hope for dispersal of industry to other parts of Oregon.

Even in 1966 and 1967, we knew we could be on thin ice with respect to the supply of electricity, and energy of the plant into the Northwest was the subject of considerable debate. But the forecasts were that as thin as the ice might be, we wouldn't fall through.

Perhaps, the forecasts will prove to have been over-optimistic, but hashing over the past now won't change anything. We have been taught to be more cautious, though, and to improve our planning process.

But in 1966, the Bonneville Power Administration was anticipating steady growth in energy sources, and the contract was made. Bonneville couldn't have known in 1966 that streamflows in the Pacific Northwest would fall to near-record lows in 1973. BPA couldn't have known that Congress would not sufficiently finance hydroelectric projects, or that the Federal Office of Management and Budget would impound some of the funds that were appropriated, or that the Trojan plant would go into operation a year behind schedule.

This background is essential to an understanding of why BPA is committed to AMAX, and why the commitment may not seem, now, to have been wise. Nevertheless, it was made.

We need jobs in Oregon, and that's one of the reasons I've urged everyone to reduce energy use by 10 percent. We all should sacrifice a little so that no one must sacrifice totally.

Yet I question that we can make the kinds of sacrifices and develop enough new sources of energy in this decade to sustain rational growth. So I have withdrawn my long-standing personal support for development of the AMAX project. Faced with an energy crisis that will not be overcome for many years, we cannot invite industry that consumes electricity far in excess of those with equal or greater job-producing potential. It is wrong from that standpoint, and it is wrong psychologically. We cannot effectively push for an energy conservation ethic while we're funneling huge blocks of power to comparatively inefficient uses.

Probably the other compelling issue concerning AMAX is what impact its operation will have on the environment. I don't have the answer -- but my administration is in pursuit of one that's calculated to protect the coast. The AMAX plant -- if it is built -- must be the environmentally cleanest aluminum producer in the world. If it is not, it will not operate in Oregon.

Mr. Gary Soucie
September 17, 1973
Page 2

Proposed regulations would restrict new aluminum plants to air emissions not exceeding one pound of fluoride for each ton of production. I'm aware of contentions that this is a standard beyond industry technology, and I'm aware of the discussions that the regulations might therefore be made less strict. But the fact is that we've set tough standards before that were said to be beyond technology, and they were met anyway. In my view, the unachievable can be achieved, but only if we demand it.

Probably there are other considerations to which I haven't addressed myself. Dozens of Warrenton school children visited me last spring and said they don't want an aluminum plant in their town, or much of anything else new. They said, "We want things just as they are."

I guess I can't address myself to that. Local residents have the principal say in what kinds of industry they will attract, or not attract, so the children must look to home for their answer.

Thanks, Gary, for inviting me to write.

Best wishes,

Governor

TM:mh

8949

4-1454

FORM E-30 (REV. 10-69)

REGION 2 ENGINEER
RECEIVED
JUL 27 1973
RE RCE RME RTE ROE
ULE GEO TA FILE

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Astoria, Oregon
26 July 1973

SUBJECT: AMAX Aluminum Plant
City of Warrenton

NOTED
E. S. HUNTER

To: C. O. Fredrickson
Regional Engineer
Region II

In the evening of 25 July 1973, I attended a meeting at the Astoria Port Docks that included officials from AMAX and local officials. At this meeting, the AMAX pecple indicated that they were definitely proceeding with their plans for the Warrenton plant and would be submitting an application to the D.E.Q. in September. They are wanting as much input as possible from the local people so that they may incorporate the local people's desires, when feasible, into their final plans.

From all indication, it appears that this is not another false alarm, but that indeed it will not be long before construction is started on the aluminum plant in Warrenton. Their current plans call for the start of construction this coming spring. They plan on having their first pot line in operation in January 1976 and the second pot line in operation in July 1976. They are estimating that at the peak of construction that they will have 2000 workers on the job site. This peak employment should be in the summer of 1975.

When this same issue was a hot item a couple of years ago, it was felt that the south unit of the Astoria Camp Rilea section of the Oregon Coast Highway should be built prior to the operation of the aluminum plant, due to the traffic impact that it will have on the Oregon Coast Highway in this area. At the meeting I attended, there was concern expressed by both the AMAX officials and the local people as to what was the status of this particular project. I was not directly asked so made no comment at this meeting.

I am sure that AMAX officials will be getting in contact with the State Highway Division in the near future; but I felt that you should be aware of these facts as the construction of this plant will definitely have an effect on our highway system in this area. It will not only be from the employees of the plant, but it is now their plan to transport the Alumina from the port docks to the plant site either by truck or by rail. Either way they go will have an effect on us. I am sure we will be hearing much more in regard to this in the near future.

Eldon L. Everton
DISTRICT ENGINEER

RECEIVED
JUL 31 1973
OFFICE OF
ASSISTANT STATE HIGHWAY ENGINEER

Dec Scott Coulter
E. S. Hunter
Neal Vanatta
Vic Wolfe

We should complete our plans for the South Unit of the Astoria - Camp Rilea Sec. Minor revisions still needed
D. Kunis

8949

RECEIVED
JAN 28 197
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101 - Cattle
of

January 27, 1972

Mr. T. D. Briggs, Vice President
AMAX Pacific Corporation
Post Office Box 220
Warrenton, OR 97146

Dear Mr. Briggs:

As indicated to you in previous discussions, financing for the South Unit, Astoria-Camp Rilea project will not be available this year. It is hoped that this situation does not affect your development plans for the Northwest Aluminum Company industrial site.

If you have any questions or wish to discuss the matter in further detail, please let us know.

Very truly yours,

George H. Baldwin
Administrator of Highways

By

F. B. Klahoe
Deputy State Highway Engineer

GCM:jp 1a

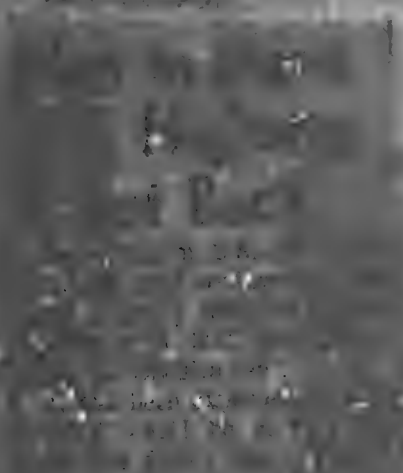
bc Tom Edwards
E. S. Hunter
V. D. Wolfe

8449

Warrenton P
CE

Patterson

1-23-72



RECEIVED
JAN 5 - 1972
FOR FILING

8949

January 4, 1972

Mr. T. D. Briggs
AMAX Pacific Corporation
Post Office Box 220
Warrenton, OR 97146

41061-C

Dear Mr. Briggs:

In reply to your inquiry of December 20, we do not contemplate constructing a grade separation structure over the railroad on the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway (US101). Cantilever flashing light signals supplemented with crossing gates are considered adequate at this crossing.

Very truly yours,

Tom Edwards
State Highway Engineer

By

F. B. Kleboe
Deputy State Highway Engineer

FBK:in

bc Tom Edwards
Victor D. Kolfe
T. W. Litchfield

FORM E-20 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

January 3, 1972

SUBJECT: S. Unit Astoria-Camp Rilea Section
Oregon Coast Highway
Clatsop County
Assignment 4661-B

To: Mr. F. B. Klaboe
Deputy State Highway Engineer

Present train movement on the overpass near Warrenton is two crossings per day. AMAX Pacific Corporation indicated at previous meetings that their needs would require six crossings per day, so it would seem that eight per day may be required when AMAX is in full operation.

Railroad grade separation has not been considered in past study since a similar crossing presently exists at both north and south ends of the Youngs Bay Bridge.

Since ADT is less than that at the Corvallis-Lebanon crossing, it would appear that a grade crossing here would be within current policy.

Attached is a suggested reply to Mr. Briggs of AMAX Pacific Corporation.

Victor D. Wolfe
Location Engineer

VDW:mc

Att.

SP 93479-784

AMAX Pacific Corporation

P. O. BOX 220, WARRENTON, OREGON 97146 (503) 861-1611

December 20, 1971

Mr. F. B. Klaboe
Assistant State Highway Engineer
Oregon State Highway Department
Salem, Oregon 97310

Dear Fred:

Hal Moy told me last week that there was some discussion about a rail overpass over the new Coastal Highway #101 near Warrenton. While this approach seems quite sensible, I wanted to verify this possibility. If so, I will put it on my list to discuss with you this summer along with Hal so there is no confusion about routing and integration with our schedules.

Very truly yours,

Ted

T. D. Briggs

TDB/jc

RECEIVED
DEC 23 1971
LOCATION
SECTION

RECEIVED
DEC 22 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 12 1971

AMAX Pacific Corporation Please reply to Box 937, Ferndale, Wash.
P. O. BOX 220, WARRENTON, OREGON 97146 (503) 861-1811 98248

NOTED
R. L. PORTER

August 10, 1971

Mr. F. B. Klaboe
Assistant State Highway Engineer
Oregon State Highway Division
Salem, Oregon 97310

Dear Fred:

In line with our verbal agreement of August 4, I am confirming the following:

1) The location of Coastal Highway #101, adjacent to the Amax Pacific site, will follow the "L" line. This line represents the original right-of-way outlined by your Department. The suggested "L-3" line, requested by Northwest Aluminum, will not be used.

2) Amax Pacific will sell to your Department, at fair market value, approximately twenty feet along the eastern portion of the "L" line right-of-way from Marker 190 to Marker 225 so that there will be sufficient right-of-way for a four-lane highway.

3) Amax Pacific will provide an easement to your Department of approximately 4.7 acres directly east of the "L" right-of-way for the construction of a berm. The berm, located between Marker 188 and Marker 212, is to be sixteen (16) feet above the roadway. The berm will have a 3:1 slope on the highway side.

4) The berm is to be constructed by your Department of highway spoil, and the cost of the earth movement is to be paid by Amax Pacific. However, Amax Pacific will have the right to reject any bid, or will have the right to negotiate contractor cost. The cost, bids, and/or negotiation surrounding the berm will be reviewed fully between the Department and Amax Pacific before the berm is actually constructed.

8-11-71

orig cc Porter Eder Cox Hall - Regional Design engineer, plans. Advertising for letting in mid spring.

5) Amax Pacific will provide the shrubs and trees for the berm, except that your Department will seed the berm for erosion control purposes.

6) Amax Pacific will maintain the berm once constructed and the Company will own the land on which it is constructed.

7) Amax Pacific can specify the number and location of utility tunnels beneath the highway and will pay the additional cost of construction of these tunnels. It is understood the Highway Department must have the specifications and locations of the tunnels before August 15, 1972 if they are to be incorporated in the construction of the highway.

8) It is understood there will be an intersection at Highway #101 and Dolphin Street which can be tied into an access road to the plant site.

I trust this sufficiently details our agreement. Please contact me if you have any further questions. I can assure you that Amax Pacific will cooperate in every manner possible with your Department in order to expedite this most needed highway.

Very truly yours,

T. D. Briggs

TDB/jc

cc-Glenn Jackson
David Mayers
Herbert Clough

RECEIVED
AUG 11 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUL 29 1971
FOR FILING

July 28, 1971

Mr. Ted D. Briggs
Vice President
AMAX Pacific Corporation
Post Office Box 220
Warrenton, Oregon 97146

Dear Mr. Briggs:

At your request, we have analyzed two alternates for the highway location in the vicinity of the proposed AMAX aluminum plant. Alternate 1 was to leave the centerline in its original location and to construct a 16½-foot earth berm at the edge of the cut slope between your proposed plant and our highway. This earth berm would require hauling and placing approximately 50,000 cubic yards of material (no excavation is charged here because the material has to be subexcavated before we can build a road and is waste). At our estimated cost of $.50 per cubic yard, this amounts to $25,000. We also figure that someone would have to plant about 550 trees at $20 each on top of this berm for additional screening. We estimate the total of this item to be $11,000. It would also be desirable to plant shrubs along the face of the berm in order to make it more compatible with the surrounding area. The 1600 shrubs required at $5 each would come to an additional $8,000.

The total expense therefore to AMAX for leaving the centerline in its original location is approximately $44,000.

If the centerline were shifted westerly, the additional construction cost over that estimated on the original line would be $75,000. In addition, we would have to purchase approximately $100,000 of new right-of-way for a total cost under this alternate of $175,000. An offset to AMAX is found in the 15.7 acres, estimated to be worth $1,500 per acre, that would be transferred to AMAX.

In rough figures, the shift to the westerly line would require the expenditure of $175,000 minus $25,000 for a total of $150,000.

All the figures and pertinent information are available in my office for your inspection at your convenience.

If we can be of any further assistance, please advise.

Very truly yours,

R. L. Porter
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

bc: R. L. Porter
Tom Edwards
Victor D. Wolfe
F. L. Hall
George Wills
D. H. Hashring
J. B. Boyd

cc: Post Office Box 937
Ferndale, Washington 98248

Cost to Amax

			Expense
"L" Line			
Haul & Place 50,000 c.y. of Emb fnd exc @ 50¢			25,000
Tree Planting 550 @ $20			11,000
Shrub Planting 1600 @ $5			8,000
			$44,000
L^3 Line			
Additional const cost			75,000
E/W	44039	$22,500	100,000
	44040	500	
	44041	600	
	44042	9,000	
	35425	12,500	
	44044	18,000	
	44045	1,500	
	44046	400	
	44047	2,500	
	44048	1,200	
	44049	750	

L^3 Line

Additional const cost			75,000
R/W	44039	# 22,500	100,000
	44040	500	
	44041	600	
	44042	9,000	
	35425	12,500	
	44044	18,000	
	44045	1,500	
	44046	400	
	44047	2,500	
	44048	1,200	
	44049	750	
	44050	2,500	
	44051	2,000	
(A.I.Co)	35423	28,000	
		102,950 Say # 100,000	
			175,000
15.7 Acres @ #1500/acre ± (to be deeded to AMAX)		23,500 Say Credit	(25,000)
			# 150,000

RECEIVED
OCT 29 1971
FOR FILING

8949

October 29, 1971

Mr. H. F. May
Regional Manager, Engineering
Burlington Northern, Inc.
1101 N. W. Hoyt Street
Portland, Oregon 97207

Dear Mr. May:

In reply to your request, we are enclosing a print of our right-of-way map 88-26-20, S. Unit Astoria-Camp Rilea Section. Two alignments are shown--L and L^3. Our present project is being worked up on the basis of the L line, which the AMAX Corporation has concurred in.

The precise right-of-way to accommodate our embankment and fill construction is not delineated at this time. However, we are proposing that a strip 200 feet easterly of our centerline be established for a right-of-way line, which would be sufficient to include a buffer and allow maintenance of a vegetative screen between our highway and your proposed railroad spur to AMAX.

If further information is required, please advise.

Very truly yours,

R. L. Porter
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

Enc.

cc: R. L. Porter
Tom Edwards
F. L. Hall
Victor D. Wolfe
T. W. Litchfield
J. B. Boyd

GCW:mc srb

894?

Hwy 9 / Amax Corp

FORM E-30

RECEIVED
COUNTY & CITY SECTION
OCT - 4 1971
ENGR. COOR. CE AE UE
UPE CE RE RPE

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
October 4, 1971

TO:
Mr. Frank Hall
Design Engineer
BUILDING

SUBJECT: Earth Berm on AMAX Pacific Corp. Property
Astoria-Camp Riles Section
Oregon Coast Highway

In regard to Mr. T. D. Briggs' August 10, 1971 letter to F. B. Klaboe which included a reference to an earth berm, I offer the following recommendation. Item 4 of Mr. Brigg's letter states:

"The berm is to be constructed by your Department of highway spoil, and the cost of the earth movement is to be paid by Amax Pacific. However, Amax Pacific will have the right to reject any bid, or will have the right to negotiate contractor cost. The cost, bids, and/or negotiation surrounding the berm will be reviewed fully between the Department and Amax Pacific before the berm is actually constructed."

County-City has written a proposed agreement between Amax Pacific and the State which includes the above provisions.

I recommend that the agreement for the cost of our construction of the earth berm be made with Amax Pacific now. A contractor possibly could unbalance his bid for the berm material. If the contractor bid high, the award of a multi-million dollar contract could be held up over consideration of less than one percent of the project.

A fair price Lump sum for constructing the earth berm may be determined as follows:

Item	Fair Price	Estimated Quantity	Amount
Clearing	$1,000	8 Acre	$ 8,000
Berm in Place	$0.92	25,000 C.Y.	23,000
Seed and Mulch	$400	16 Acre	6,400

The berm in place will be constructed from excess surcharge material from the Skipanon flat. If the material was not used in the berm, we would doze the material off the grade and flatten the fill slopes. Our cost to do this is:

Flatten Fills	$0.15	25,000 C.Y.	- 3,750
		LUMP SUM TOTAL	$33,650

NOTE: The above unit prices may be applied to the final estimated quantities to construct the berm. The final lump sum amount offered in our agreement shall correspond to our best estimate of the work required to construct the berm.

F. D. Morgan
Construction Engineer

By Edgar L. Johnsen

Edgar L. Johnsen
Special Studies & Chief Cost Engineer

ELJ:fw

cc: F. D. Morgan
J. B. Boyd
H. S. Cox

@ Warrenton
& Svensen, Astoria, Pilot

AMAX Pacific Corporation Please reply to Box 937, Ferndale, Wash.

P. O. BOX 880, WARRENTON, OREGON 97146 (503) 861-1811 98248

August 10, 1971

RECEIVED
COUNTY & CITY SECTION
AUG 11 1971
☑ ENGR. ☑ COOR. ☐ GD ☐ AE ☐ UE
☐ UPE ☐ CE ☑ RE ☐ RPE ☐

Mr. F. B. Klaboe
Assistant State Highway Engineer
Oregon State Highway Division
Salem, Oregon 97310

Dear Fred:

In line with our verbal agreement of August 4, I am confirming the following:

1) The location of Coastal Highway #101, adjacent to the Amax Pacific site, will follow the "L" line. This line represents the original right-of-way outlined by your Department. The suggested "L-3" line, requested by Northwest Aluminum, will not be used.

2) Amax Pacific will sell to your Department, at fair market value, approximately twenty feet along the eastern portion of the "L" line right-of-way from Marker 190 to Marker 225 so that there will be sufficient right-of-way for a four-lane highway.

3) Amax Pacific will provide an easement to your Department of approximately 4.7 acres directly east of the "L" right-of-way for the construction of a berm. The berm, located between Marker 188 and Marker 212, is to be sixteen (16) feet above the roadway. The berm will have a 3:1 slope on the highway side.

4) The berm is to be constructed by your Department of highway spoil, and the cost of the earth movement is to be paid by Amax Pacific. However, Amax Pacific will have the right to reject any bid, or will have the right to negotiate contractor cost. The cost, bids, and/or negotiation surrounding the berm will be reviewed fully between the Department and Amax Pacific before the berm is actually constructed.

8-11-71

cc Porter
Edw
Hall - Prepare desc. mineability, plans. Get ready for letting next spring.
Boyd - Finish field work, purchase R/W.

5) Amax Pacific will provide the shrubs and trees for C-S the berm, except that your Department will seed the berm for erosion control purposes.

6) Amax Pacific will maintain the berm once constructed C and the Company will own the land on which it is constructed.

7) Amax Pacific can specify the number and location of utility tunnels beneath the highway and will pay the C-S additional cost of construction of these tunnels. It is understood the Highway Department must have the specifications and locations of the tunnels before August 15, 1972 if they are to be incorporated in the construction of the highway.

8) It is understood there will be an intersection at Highway S #101 and Dolphin Street which can be tied into an access road to the plant site.

I trust this sufficiently details our agreement. Please contact me if you have any further questions. I can assure you that Amax Pacific will cooperate in every manner possible with your Department in order to expedite this most needed highway.

Very truly yours,

T. D. Briggs

TDB/jc

cc-Glenn Jackson
David Mayers
Herbert Clough

RECEIVED
AUG 11 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 27 1971
FOR FILING

NOTE
8947 F. B. KLABOE

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

SALEM, OREGON

August 19, 1971

To: Mr. F. B. Klaboe
Assistant State Highway Engineer
BUILDING

SUBJECT: Throughway Agreements
S. Unit, Astoria-Camp Rilea Section
Oregon Coast Hwy. #9 (US 101)
City of Warrenton
Clatsop County

On August 18 an agreement with AMAX Pacific Corporation (Assign. #4327) was forwarded to you for review and approval with mention of an additional agreement forthcoming with the City of Warrenton and Clatsop County pertaining to subject matter.

In December of 1966, agreements were sent to you and returned with "hold for later submission" due to undetermined location, design, etc.

These agreements, attached, have been updated to cover the proposed project as we understand it and provide for City of Warrenton to assume the existing alignment between the new connection of Highway 101 and S.E. 12th Place, and the Ft. Stevens Hwy. (Main Street) excepting the Skipanon River Bridge. It is likely, based on prior discussion, they will not accept this or any other proposal and we may have to work through the Clatsop County Board of Commissioners.

I might mention we would propose to extend the Ft. Stevens Hwy. south to the new US 101 near Camp Rilea for continuity of travel on highway routes. ?

Please review these documents and refer to appropriate personnel for consideration, comments, etc., and return to this office for further processing.

8-27-71
Rec'd to Hall to check & forward to COX

RECEIVED
AUG 19 1971
OFFICE OF
STATE HIGHWAY ENGINEER

H. S. Cox
County and City Engineer

By D. N. Harwell

D. N. Harwell
Coordinating Engineer

DNH:ljt

Att.

Please discuss & close
8-25-71

FORM E-20 (REV. 10-68)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

SALEM, OREGON

August 18, 1971

To: Mr. F. B. Klaboe
Assistant State Highway Engineer

BUILDING

SUBJECT: Assignment #4327
AMAX Pacific Corp.- Construction Agreement
City of Warrenton - Throughway Agreement
Clatsop County - Throughway Agreement

9-22-71. Cost people will recomend to Klaboe changes in present proposal. They will suggest a set price per c.y. for items in place with an accurate estimate of yards needed.

Herewith per assignment #4327 is a suggested draft of an agreement between AMAX Pacific Corporation and State regarding construction of the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Hwy. #9 (US 101).

You will also be receiving soon suggested agreements for the City of Warrenton and Clatsop County regarding the construction of the relocated US 101, which will include road closures, utility relocation, reconstructed roads and/or streets, as well as relinquishment of portions of the existing highway in the immediate vicinity.

Please review at your earliest convenience and transmit to Design Section for their comments and return to this office for final form and presentation to the parties involved.

H. S. Cox
County and City Engineer

By

D. N. Harwell
Coordinating Engineer

DNH:ljt

RECEIVED
AUG 18 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 24 1971
DESIGN
SECTION

Do Not File
Keep
Return To Cox
Other

Rec'd Ltr Nael Ltr check & forwarded D Lee 9-24-71

SP 32478-734

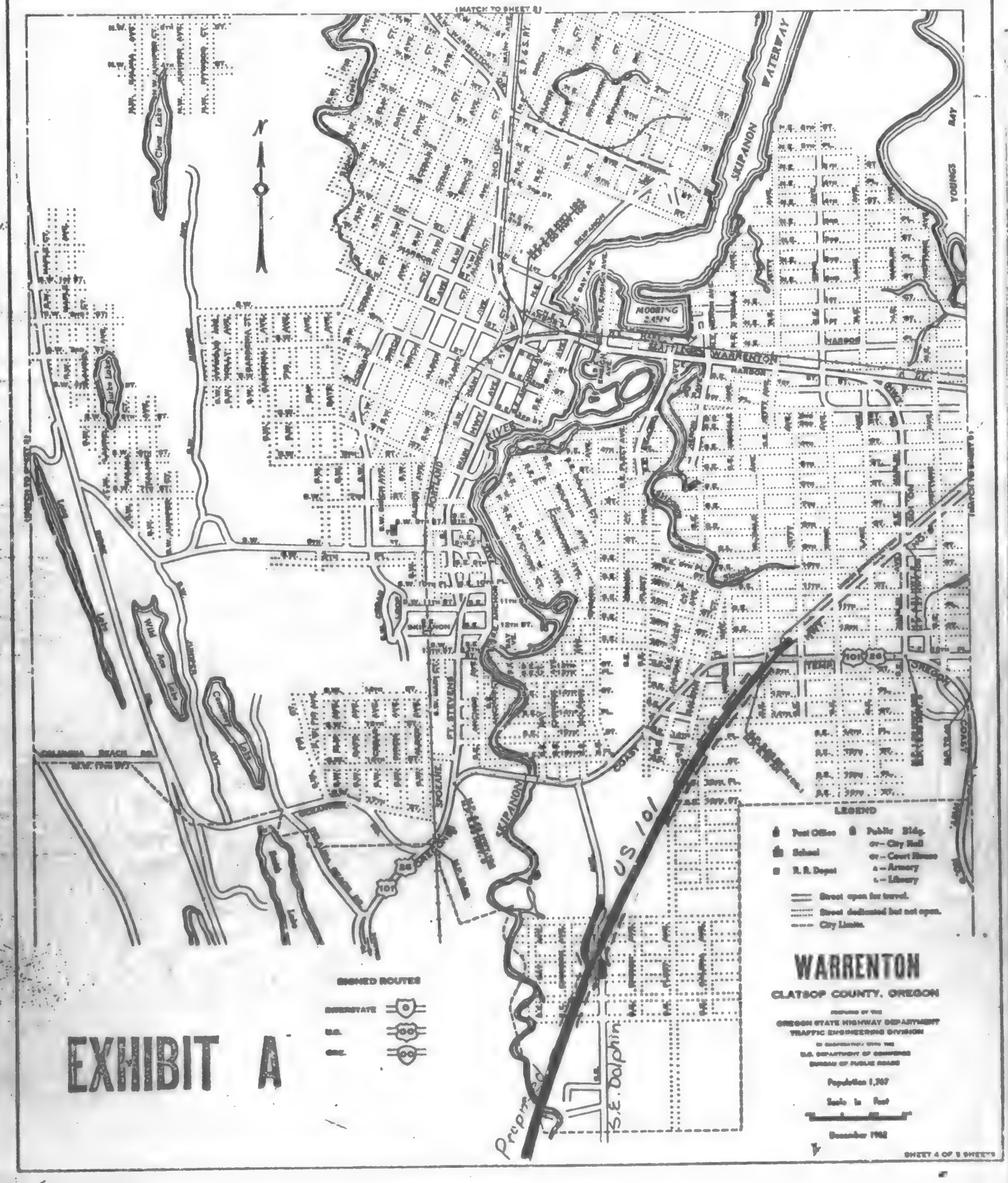

(MATCH TO SHEET 5)
SKIPANON WATERWAY
MOORING BASIN
HARBOR
WARRENTON
RIVER
Clear Lake
Smith Lake
Wild Ash Lake
Coffenbury Lake
Lake
SKIPANON
COLUMBIA BEACH
US 101
OREGON
COAST
Proposed
S.E. Dolphin
SIGNED ROUTES
INTERSTATE
U.S.
LEGEND
Post Office
School
R. R. Depot
Public Bldg.
cv – City Hall
cv – Court House
a – Armory
l – Library
Street open for travel.
Street dedicated but not open.
City Limits.
WARRENTON
CLATSOP COUNTY, OREGON
OREGON STATE HIGHWAY DEPARTMENT
TRAFFIC ENGINEERING DIVISION
Population 1,317
Scale in Feet
December 1962
SHEET 4 OF 5 SHEETS

EXHIBIT A

Hwy 9
@ Warrenton
& Sandy, Astoria - Pilot

AMAX Pacific Corporation Please ~~reply~~ to Box 937, Ferndale, Wash.

P. O. BOX 220, WARRENTON, OREGON 97146 (503) 861-1811 98248

August 10, 1971

RECEIVED
COUNTY & CITY SECTION
AUG 11 1971
☐ ENGR. ☑ CCOR. ☐ DE ☐ AE ☐ DE
☐ DPE ☐ CE ☐ RE ☐ RPE ☐

Mr. F. B. Klaboe
Assistant State Highway Engineer
Oregon State Highway Division
Salem, Oregon 97310

Dear Fred:

In line with our verbal agreement of August 4, I am confirming the following:

1) The location of Coastal Highway #101, adjacent to the Amax Pacific site, will follow the "L" line. This line represents the original right-of-way outlined by your Department. The suggested "L-3" line, requested by Northwest Aluminum, will not be used.

2) Amax Pacific will sell to your Department, at fair market value, approximately twenty feet along the eastern portion of the "L" line right-of-way from Marker 190 to Marker 225 so that there will be sufficient right-of-way for a four-lane highway.

3) Amax Pacific will provide an easement to your Department of approximately 4.7 acres directly east of the "L" right-of-way for the construction of a berm. The berm, located between Marker 188 and Marker 212, is to be sixteen (16) feet above the roadway. The berm will have a 3:1 slope on the highway side.

4) The berm is to be constructed by your Department of highway spoil, and the cost of the earth movement is to be paid by Amax Pacific. However, Amax Pacific will have the right to reject any bid, or will have the right to negotiate contractor cost. The cost, bids, and/or negotiation surrounding the berm will be reviewed fully between the Department and Amax Pacific before the berm is actually constructed.

Approx 60,000 Cu. Yds.

8-11-71

orig cc Porter
Cox
Hall - Rogue Dev. minority, plan. Get copy for hearings next spring.
Boyd - Final field work, confirm R/W.

5) Amax Pacific will provide the shrubs and trees for C-S the berm, except that your Department will seed the berm for erosion control purposes.

6) Amax Pacific will maintain the berm once constructed C and the Company will own the land on which it is constructed.

7) Amax Pacific can specify the number and location of utility tunnels beneath the highway and will pay the C-S additional cost of construction of these tunnels. It is understood the Highway Department must have the specifications and locations of the tunnels before August 15, 1972 if they are to be incorporated in the construction of the highway.

8) It is understood there will be an intersection at Highway S #101 and Dolphin Street which can be tied into an access road to the plant site.

I trust this sufficiently details our agreement. Please contact me if you have any further questions. I can assure you that Amax Pacific will cooperate in every manner possible with your Department in order to expedite this most needed highway.

Very truly yours,

T. D. Briggs

TDB/jc

cc-Glenn Jackson
David Mayers
Herbert Clough

RECEIVED
AUG 11 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 24 1971
FOR FILING

August 16, 1971

Mr. E. R. Baldwin
Auditor & Police Judge
City of Warrenton
Post Office Box 250
Warrenton, Oregon 97146

4322

Dear Mr. Baldwin:

Reference is made to your letter of August 9 in which you indicated a need for a right-of-way map of the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway.

The enclosed right-of-way map, file 88-26-20, shows an L line and an L^3 line. Recent discussion with AMAX has resulted in a decision to proceed with the L line which is the original location. As you probably know, the N. W. Aluminum Company had requested a relocation to the L^3 line which has now been abandoned.

The right-of-way lines are not correct as shown since the limits were determined on obsolete standards. Redesign to current four-lane needs will require additional right-of-way which will be determined in the near future.

Our objective at the present time is to contract construction in the spring of 1972 with completion by the fall of 1973.

If we may be of further service, please advise.

Very truly yours,

R. L. Porter
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

cc: R. L. Porter
Tom Edwards
F. L. Hall
J. B. Boyd
T. W. Litchfield
Frank Terpin

GCW:jf srb

CITY OF WARRENTON

WARRENTON, OREGON
97146

HAROLD C. GRAMSON
MAYOR

EMERSON R. BALDWIN
AUDITOR AND POLICE JUDGE

P. O. Box 250
TELEPHONE 861-2233

9 August 1971

Edwards
Klaboe - reply

State Highway Commission
State Highway Building
Salem - OREGON - 97310

ATTN: Roderick L. Porter, Oregon State Highway Engineer

Gentlemen:

We have noted by the local press that the Smith Point to Camp Rilea correction of Highway 101 is to be called for bids early in the year 1972.

Inasmuch as the city has relocated a portion of its water system in the north end of the projected improvement, the city would appreciate a location map if one is available, showing the rights-of-way and effected properties.

Sincerely,

CITY OF WARRENTON

E. R. Baldwin
Auditor & Police Judge

RECEIVED
AUG 11 1971
SECTION

Scott
Swenson
R. Olson
Trout A
Do Not File
Keep
Return To
Other

RECEIVED
AUG 10 1971
OFFICE OF
STATE HIGHWAY ENGINEER

NOTE
E. R. KLABOE

RECEIVED
JUL 28 1971

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 23, 1971

8949

To: L. I. Lindas
Asst. Attorney General & Counsel
B U I L D I N G

Attention: Jack Sollis

SUBJECT: S. Unit, Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

The attached copy of a letter dated December 5, 1968, from R. E. Peck to Forrest Cooper appears to be the operating agreement between Northwest Aluminum Company and the Oregon State Highway Division regarding relocation of the subject section of highway.

Northwest Aluminum Company has been acquired by AMAX Corporation who is presently involved in re-evaluation of the "L" Line versus L^3 Line which raises the question of the status of the attached agreement.

Please advise us whether this agreement is still binding between Northwest Aluminum Company and the Highway Division and whether AMAX is bound by this agreement also.

Frank L. Hall
Design Engineer
By:

George C. Wills
Chief Locating Engineer

GCW:jf
cc: F. B. Klaboe

RECEIVED
JUL 26 1971
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 19 1968
FOR FILING

Coast
RLW
101 - Clatsop

December 16, 1968

Mr. Richard E. Peck
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway
New York, N. Y. 10004

Dear Mr. Peck:

Enclosed is a copy of your December 5 letter which has been executed by the State Highway Engineer concerning highway adjustments near Astoria to alleviate conflict with your Northwest Aluminum Company development.

We will proceed just as fast as we can to accomplish the State's obligations as outlined and will be in touch with you periodically.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms
enc.
cc Forrest Cooper
F. B. Klaboe
Victor D. Wolfe
C. H. Maison

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

CABLE ADDRESS
"THEQUITY-NEW YORK"

December 5, 1968

Mr. Forrest Cooper
State Highway Engineer
State Highway Building
Salem, Oregon 97310

Dear Mr. Cooper:

This letter is to confirm the discussions held in your office on November 19, 1968, regarding the relocation of new highway 101 in Warrenton as shown on the attached aerial photograph.

It is agreed that in connection with the relocation of new highway 101, the costs of such relocation will not exceed $81,000, and Northwest Aluminum Company, Inc. will:

1. Pay costs of additional land purchased by State Highway Department required for said highway.

2. Give its deed on land presently owned by Northwest which is required for said highway, without cost to the highway department,

3. Pay costs of the State Highway Department's survey crew for additional work required on said highway relocation.

4. Pay costs of additional engineering performed by the State Highway Department employees as may be required for the said highway relocation.

In consideration for the payment by Northwest of costs incurred, as outlined in the paragraph above, the State Highway Department will:

1. Prepare as soon as practicable an estimate which sets forth in reasonable detail the estimated costs which are to be paid by Northwest,

2. Prepare and send periodically to Northwest its invoices which set forth in reasonable detail the actual costs incurred by the State Highway Department for the relocation of new highway 101.

3. Give its deed to Northwest, without cost to Northwest, to all land presently owned by the Department for the said new highway 101 which will not be required for the relocation of said highway.

It is further agreed that both parties will frequently consult with each other as often as is necessary to advise Northwest of costs to be incurred and to expedite this relocation of the new highway 101.

If the foregoing is acceptable, please sign and return the copy enclosed.

Very truly yours,

NORTHWEST ALUMINUM COMPANY, INC.

By Richard E. Peck
Executive Vice President

Agreed to and Accepted

this 16th day of December, 1968:

STATE HIGHWAY DEPARTMENT

By Forrest Cooper
Forrest Cooper
State Highway Engineer

cc: Fred Klaboe, Assistant Chief Engineer

RECEIVED
DEC 9 1968
OFFICE OF
STATE HIGHWAY ENGINEER

Copy to Hal Hoy, CPYS
12-24-68

8134

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

December 5, 1968

CABLE ADDRESS
"THEQUITY-NEW YORK"

Mr. Forrest Cooper
State Highway Engineer
State Highway Building
Salem, Oregon 97310

Dear Mr. Cooper:

This letter is to confirm the discussions held in your office on November 19, 1968, regarding the relocation of new highway 101 in Warrenton as shown on the attached aerial photograph.

It is agreed that in connection with the relocation of new highway 101, the costs of such relocation will not exceed $81,000, and Northwest Aluminum Company, Inc. will:

OK 1. Pay costs of additional land purchased by State Highway Department required for said highway.

OK 2. Give its deed on land presently owned by Northwest which is required for said highway, without cost to the highway department,

OK 3. Pay costs of the State Highway Department's survey crew for additional work required on said highway relocation.

OK 4. Pay costs of additional engineering performed by the State Highway Department employees as may be required for the said highway relocation.

5. Pay additional construction costs based on set quantities for original construction vs actual quantities for actual work at above unit cost.

In consideration for the payment by Northwest of costs incurred, as outlined in the paragraph above, the State Highway Department will:

1. Prepare as soon as practicable an estimate which sets forth in reasonable detail the estimated costs which are to be paid by Northwest,

2. Prepare and send periodically to Northwest its invoices which set forth in reasonable detail the actual costs incurred by the State Highway Department for the relocation of new highway 101.

3. Give its deed to Northwest, without cost to Northwest, to all land presently owned by the Department for the said new highway 101 which will not be required for the relocation of said highway.

It is further agreed that both parties will frequently consult with each other as often as is necessary to advise Northwest of costs to be incurred and to expedite this relocation of the new highway 101.

If the foregoing is acceptable, please sign and return the copy enclosed.

Very truly yours,

NORTHWEST ALUMINUM COMPANY, INC.

By Richard E. Peck
Executive Vice President

Agreed to and Accepted

this ____ day of _____, 1968:

STATE HIGHWAY DEPARTMENT

By Forrest Cooper
Forrest Cooper
State Highway Engineer

✓ cc: Fred Klaboe, Assistant Chief Engineer

MEMO OF CALL OR VISIT

TO Klaboe

SECTION	DATE	TIME
	12-3	11:30 A.M.

NAME, ORGANIZATION OF CALLER

Richard Peck
new york

ACTION

☑ TELEPHONED ☐ VISITED OFFICE ☑ RADIO'D

☐ REQUESTED YOU CALL HIM AT _____ ☐ _____

☐ WILL VISIT OFFICE AGAIN AT _____ A.M. P.M. ON _____

MESSAGE

talked to Porter

SIGNATURE

FORM S-241 3014 SP*10110.734

OREGON STATE
HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

December 3, 1968

AIRMAIL

Mr. Richard E. Peck
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway, Room 711
New York, New York 10004

Dear Mr. Peck:

Referring to our telphone conversation of this date, the difference in costs between the located line and an alternate line on the Astoria-Camp Rilea Section is $80,073. The alternate line is one that is clear of your proposed aluminum plant development but which will require a small increase in estimated construction costs; some extra engineering costs; and some additional right-of-way costs.

If anything further is needed, please let us know.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

ORIGINAL SIGNED
R. L. PORTER

R. L. Porter
Deputy State Highway Engineer

RLP:ms

cc Forrest Cooper
F. B. Klaboe
Victor D. Wolfe
D. J. Barbee
R. D. Asburry

Parsons-Jurden Corporation

Engineers • Constructors

26 BROADWAY, NEW YORK, N.Y. 10004

Mr. Forrest Cooper
State Highway Engineer
Oregon Highway Department
Salem, Oregon 97310

Date: November 20, 1968

Subject: P-J Job Number 4180-1
Northwest Aluminum Company Inc.
Clatsop Project
Print Transmittals

BY DEPUTY STATE HIGHWAY E...

Gentlemen:

Enclosed are copies of the following design drawings for your information XX

for approval
(please return one signed copy) _____

for construction _____

DWG. NO.	REV. NO.	TITLE	NO. & TYPE
000-3801	Prel. Issue A	Project Plot Plan	1 Print
000-3802	Prel. Issue D	Dock Area Plot Plan	1 Print
000-3803		Plant Area Plot Plan	1 Print

Porter

Routing

1 Barlow	Trout T
Hall	Wills
A. Olson	Hackleman
Sample	Scott
Terpin	R. Olson
Swenson	Carstensen

RECEIVED
DEC 2 1968
DESIGN
DIVISION

cb

RECEIVED
NOV 22 1968
OFFICE OF
STATE HIGHWAY ENGINEER

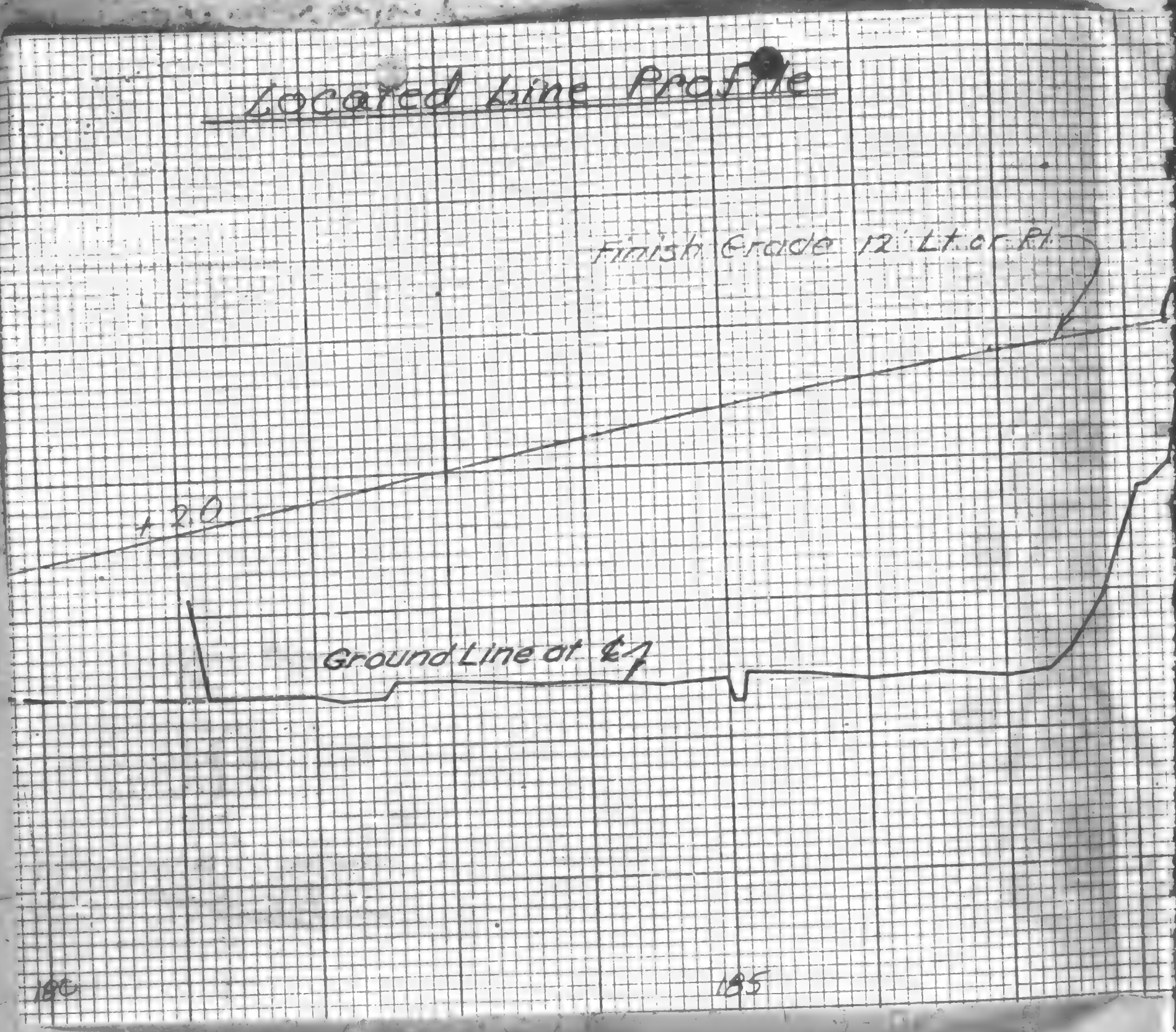
Very truly yours,

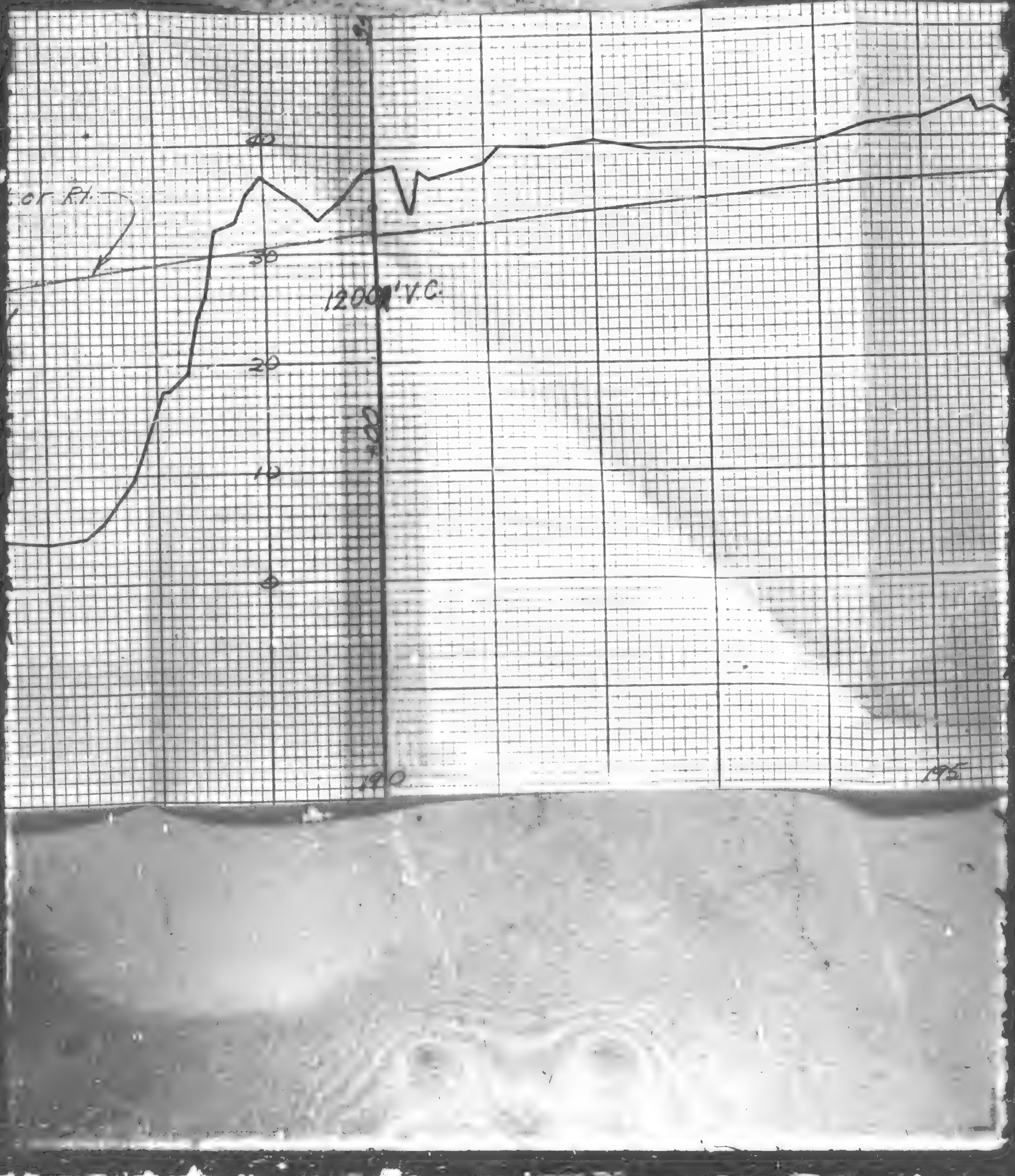
Robert H. Raring

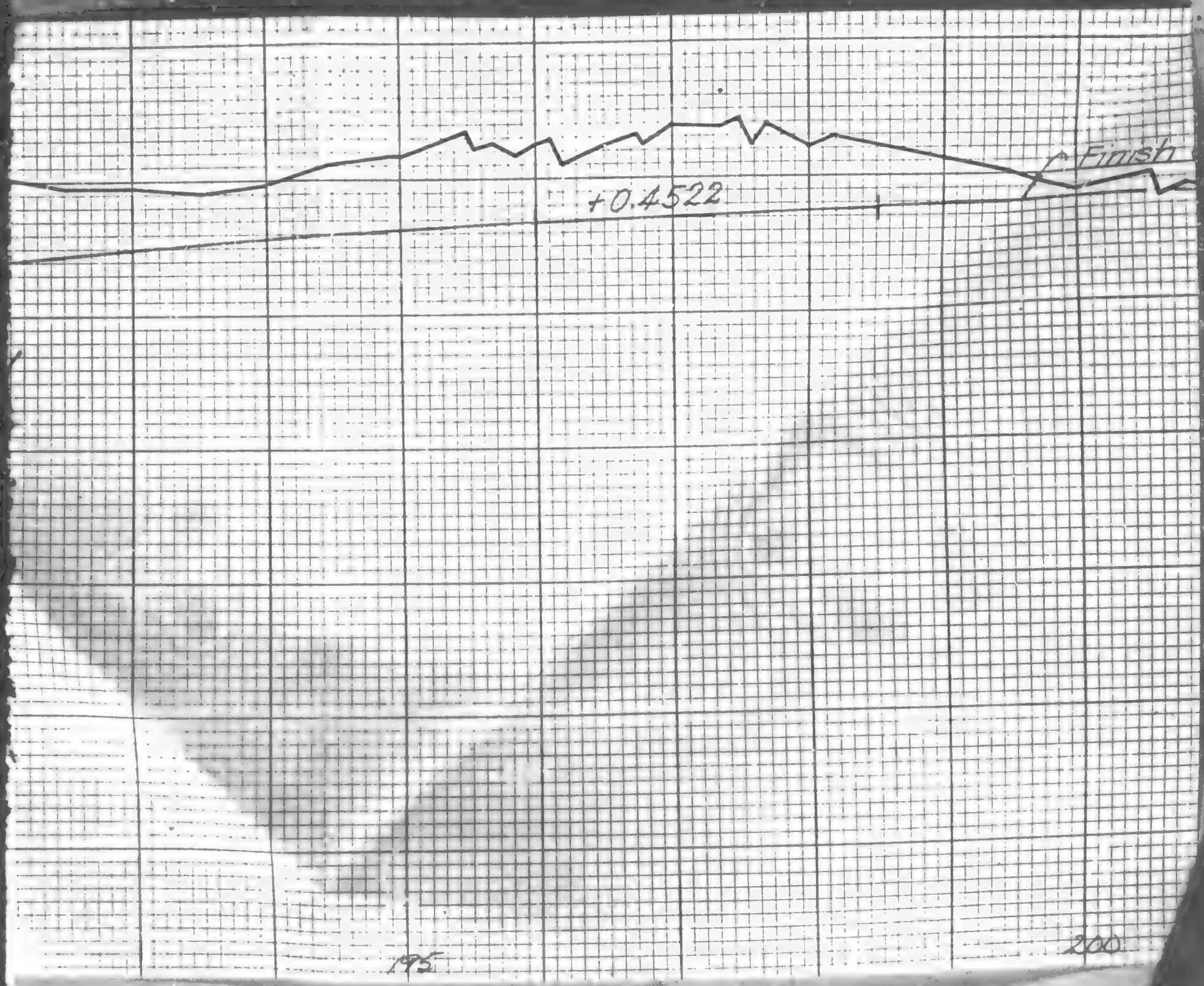
Robert H. Raring
Project Manager

A SUBSIDIARY OF THE RALPH M. PARSONS COMPANY

Located line Profile




40
30
20
10
0
1200 V.C.
190
195


Finish
+0.4522
195
200

SCALE 1:24000

1 MILE

2000 3000 4000 5000 6000 7000 FEET

1 KILOMETER

CONTOUR INTERVAL 50 FEET

LINES REPRESENT HALF-INTERVAL CONTOURS

DATUM IS MEAN SEA LEVEL

SOUNDINGS IN FEET—DATUM IS MEAN LOWER LOW WATER

N REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER

VERAGE RANGE OF TIDE IS APPROXIMATELY 8 FEET

MPLIES WITH NATIONAL MAP ACCURACY STANDARDS

OREGON

QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE

Light-duty

Medium duty — 4 LANE | 6 LANE

Unimproved dirt

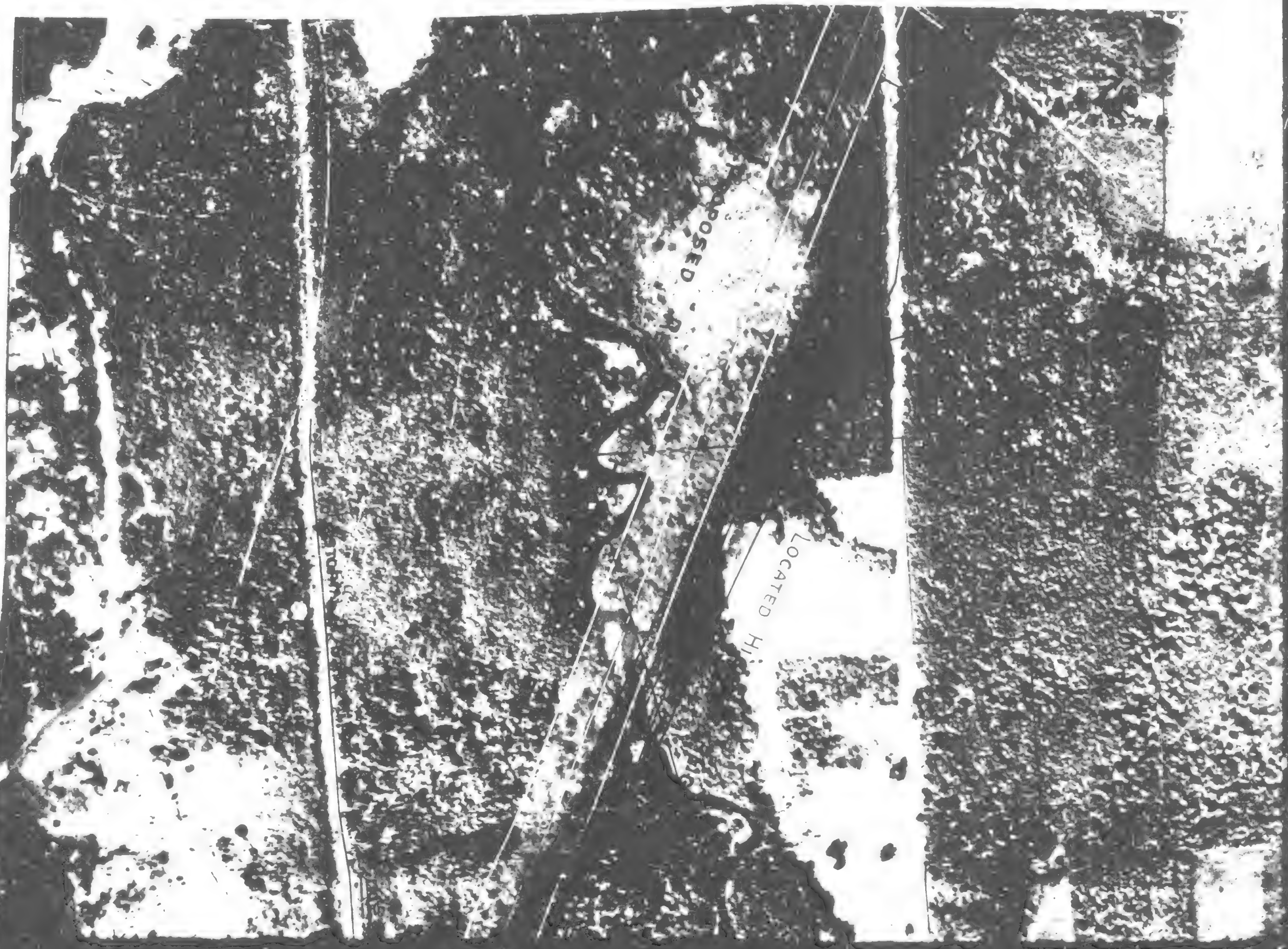
U. S. Route

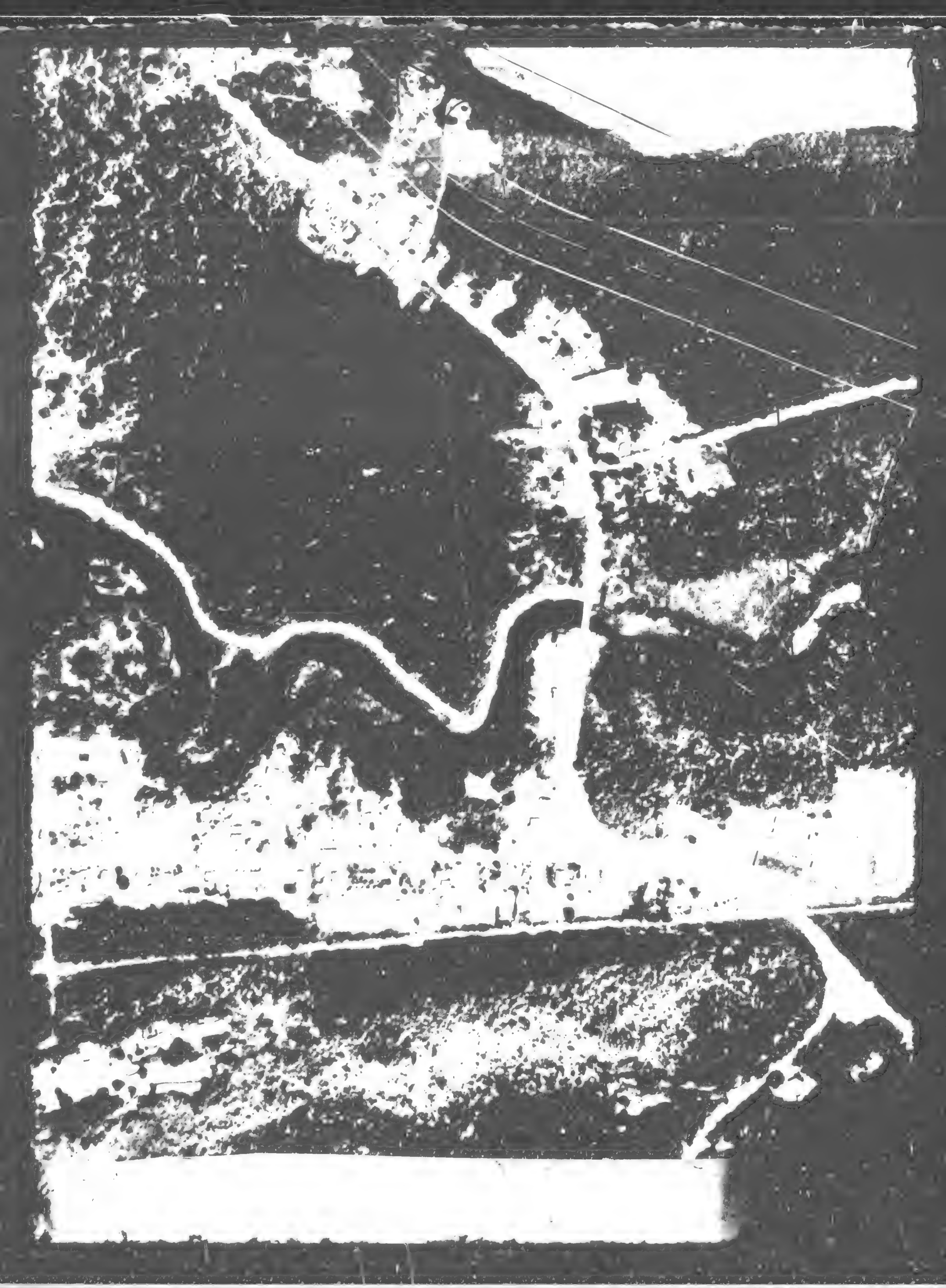
State Route

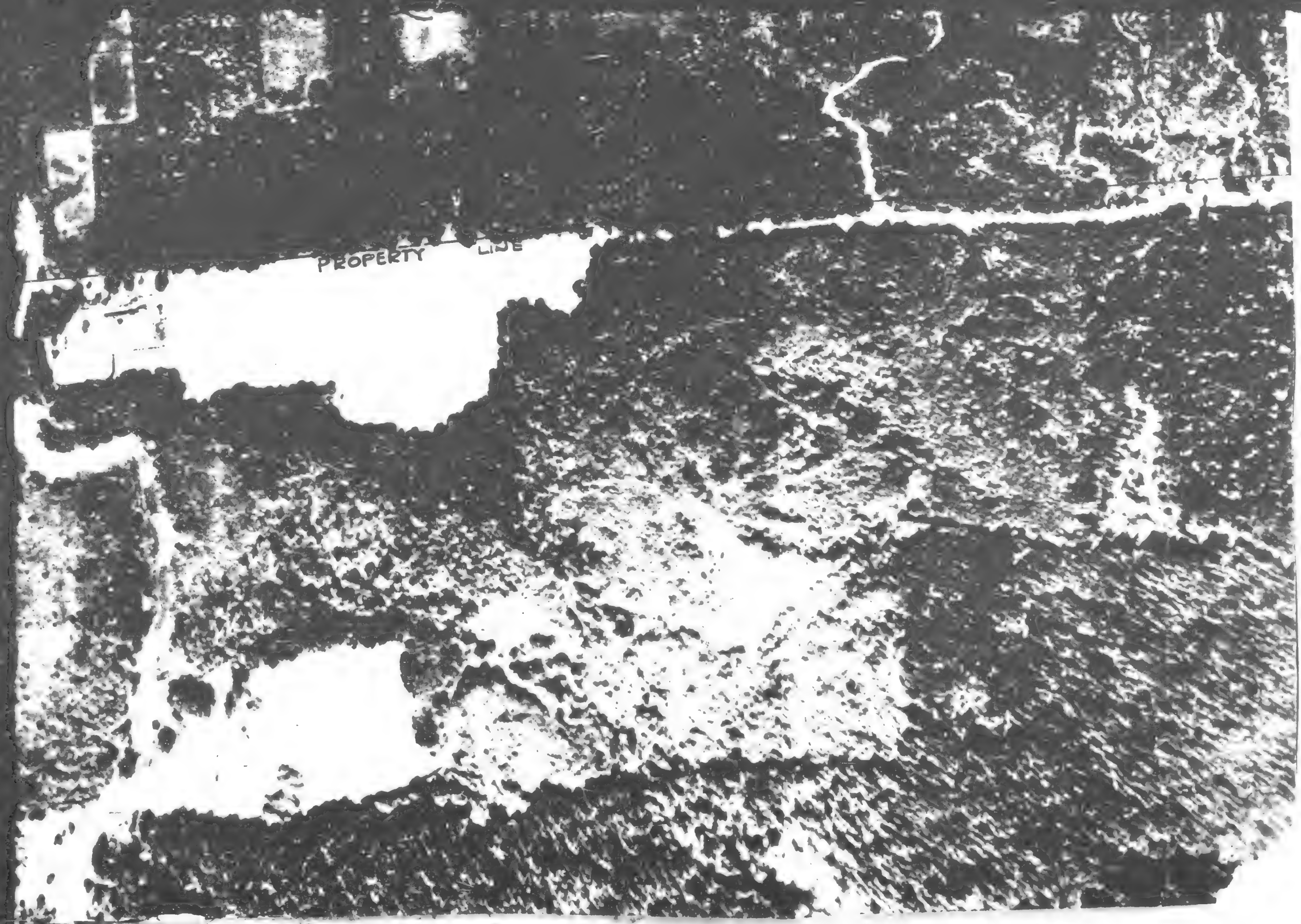
WARRENTON, OREG.—W

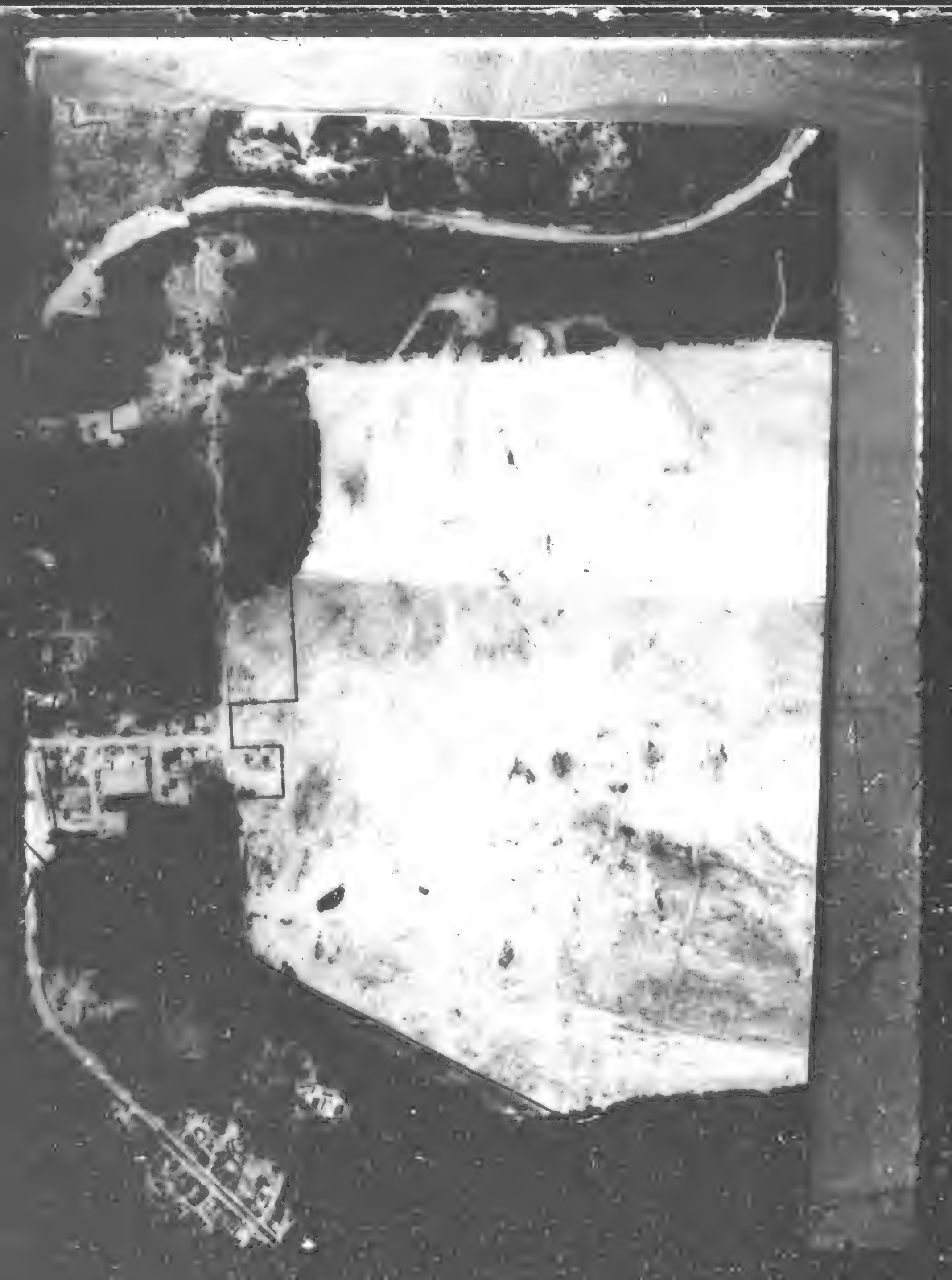
N4607.5—W12352.5/7.5

1953


PROPOSED
LOCATED HI




PROPERTY LINE



SCALING RULES 1" / 8 — 0 1 2 3 4 5 6 7 8 9 10 12 14 16 18 20 22 24 26 28 30 32 34 36 — 3" / 16 — 0 1

N 935,000

N 934,000

A

B

C

Y O U N G S

E 1,138000

U.S.C.&G.S.
SKIPANON - 2
N 935,101.4
E 1,137,721.3

R E

C A

NOTE
FILL UP AREA BETWEEN
SKIPANON WATERWAY
& PROPOSED DIKE
TO ELEVATION 14

N 934,000

N 933,000

G S

B A Y

T I D A L

D I K E T O B E C O N S T R U C T E D

E R V E D

F O R

A R E A

P L A N T

S T I C

43 ACRES ±

N 932,376.01
E 1137,380.77

N 932,000

N 931,000

F L A T

EXISTING

N 931,640.00
E 1,137,445.64
TRANSFER
TOWER

℄ 24" BELT CONVE

PROPOSE

SITE STORAGE
(REF)

350'

N 931,309

N 930,000

EXISTING DIKE

24" BELT CONVEYOR

N 2°08'08" E

PROPOSED LAKE AVENUE

4 5 6 7 8 3/4 0 1 2 3 4 5

N 930,000

N 929,000

A

B

E 1,138,000

C

N 2° 08' 32" E

K E AVENUE

R.R.

NOTE
FILL UP AREA BETWEEN
SKIPANON WATERWAY
& PROPOSED DIKE
TO ELEVATION 14

C

D

E

E 1,137000

+ SKIPANON

E 1,136000 +

FOR

CAUSTIC PLANT

43 ACRES ±

N 932,996.01
E 1137,380.77

153

LIQUID CAUSTIC

LIQUID CHLORINE

15,000 TONS COVERED SALT STORAGE

ALUMINA LOADING STATION

ELECTR SUB STATION

OFFICE

25,000 TONS

25,000 TONS

N 30° 00 E

UNLOADING CONVEYOR

RETRACTABLE CONVEYOR

820'

880' DOCK

1200 T/HR BAUXITE UNLOADER

N 35° 00' W 42" CONVEYOR

BULKHEAD

N 932,893.30
E 1136,568.07

BULKHEAD LINE

N 931,640.00
E 1,137,445.64
TRANSFER TOWER

℄ 24" BELT CO

PROPO

EXISTING

BAUXITE STORAGE (FUTURE)

BAUXITE STORAGE 100,000 TONS

555'

350'

PROPOSED 5TH PLACE

CAR DUMPING STATION

EYOR

INE

100'

300' CHANNEL

100'

PROPO

WATERWAY

NVEYOR — N 2°08'05" E

SED LAKE AVENUE

93'

N.E. KING AVE.

HARBOR

PORTLAND

SED JETTY AVENUE

SPOKANE

N 2°08'08" E

AVENUE

43'

SEATTLE R.R.

EL. 137000

N.E. KING AVE.

HARBOR PLACE

PORTLAND AND

STREET

C

D

E

AVENUE

EL. 136000

SPOKANE

HARBOR

D

E 1,136000

E

E 1,135000

F

N 935,000

N 934,000

REFERENCES	DWG. NO.	DESCRIPTION

REFERENCES	DWG. NO.	DESCRIPTION

REVISIONS	NO.
	B
	C
	7
	8

GRAPHIC CONTROLS CORP., BROOKLYN, N. Y. 11217 ASTROFILM 070.3 15128

1 2

820'

880' DOCK

BULKHEAD

CONV

BULKHEAD

LINE

N 932,893.30
E 1136,568.07

N 933,000

N 933,000

		NO.	BY	CK.	APP.	APP.	CLIENT	DATE	DESCRIPTION	REVISIONS	NO.	BY	CK.	APP.	APP.	CLIENT
		C									1					
		B									2					
		A									3					
		P									4					

2 1 3 1

CAR DUMPING STATION

PROP

PROPOSE

100'

300' CHANNEL

100'

WATERWAY

N 932,000

PRELIMINARY

[NOT FOR CONSTRUCTION]

NO.	DATE	
D	11/4/68	FOR CO
C	10/17/68	FOR CO
B	9/25/68	FOR C
A	9/18/68	FOR C

NO.	DATE	DESCRIPTION

DRAWN BY	H. GEPRAGS
CHECKED BY	
APP. DEPT. HD	
APP. PROJ. MGR.	
APP. CLIENT	

PARS
ENG
26 BR

4 | 5

PROPOSED JETTY AVENUE

N.E. HERON

N.E. HARBOR PLACE

N 93000

ITEM	No. REQ.	DESCRIPTION	MAT'L
		BILL OF MATERIAL	

NO.	DATE	PRELIMINARY ISSUE	DEPT. HD.	PROJ. MGR.
	11/4/68	FOR COMMENT		R+R
	10/17/68	FOR COMMENT		R+R
B	9/25/68	FOR COMMENT		R+R
	9/18/68	FOR COMMENT		R+R

APPROVED

PARSONS-JURDEN CORPORATION
ENGINEERS & CONSTRUCTORS
26 BROADWAY NEW YORK, N.Y.

NORTHWEST ALUMINUM C
CLATSOP PROJ

CLATSOP COUNTY

SCALE: 1" =

DOCK AREA
PLOT PLAN

00

6

ITEM	NO. REQ.	DESCRIPTION	MAT'L	LOCATION	MARK No.	DETAILED ON DWG.	REQ'N

BILL OF MATERIAL

NORTHWEST ALUMINUM COMPANY, INC.
CLATSOP PROJECT

NOV 20 1968

OREGON

CLATSOP COUNTY

DOCK AREA
PLOT PLAN

SCALE: 1" = 200'

JOB NO. 4180-1

REV. NO.

000-3802

D

6 7

SCALING 1" = 1/8 RULES

0 1 2 3 4 5 6 7 8 9 10 12 14 16 18 20 22 26 28 30 32 34 36

N

E 1,133,000

N 924,000

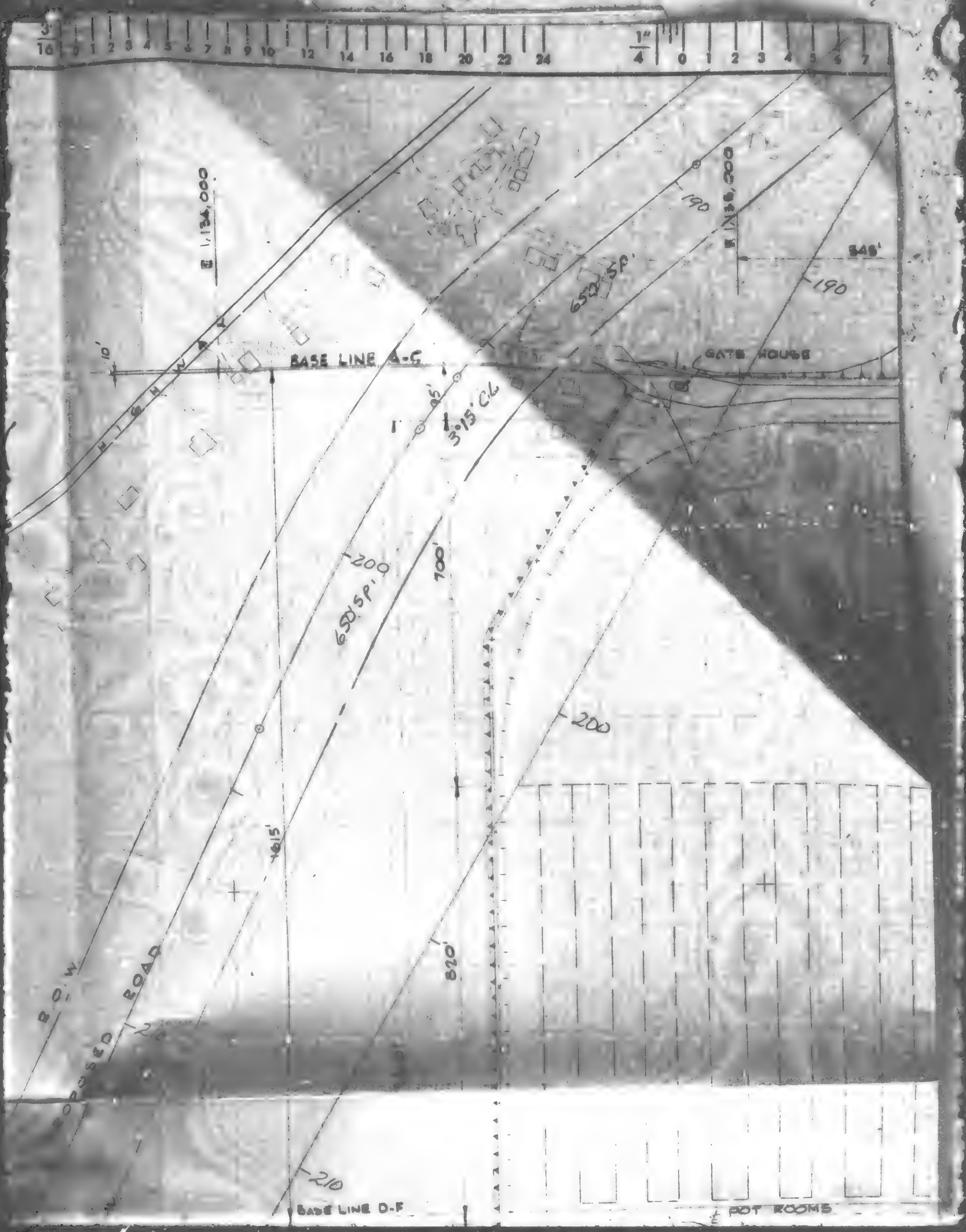
N 923,000

OREGON COAST

A

B

C


HIGHWAY
BASE LINE A-G
GATE HOUSE
POT ROOMS
BASE LINE D-F
PROPOSED ROAD
R.O.W.
650' SP.
200
100'
315'
345'
810'
615'
210
190

BASE LINE A-B

E 1,136,000

BASE LINE B-H

E 1,137,000

960'

905'

753'

EXISTING PACIFIC POWER & LIGHT SUBSTATION

302'

25'

620'

CARBON BAKE FURNACE

STACK

292'

CARBON BAKE FURNACE

PASTE PLANT

86'

116'

199'

42'

60'

ANODE PRESS

116'-0"

258'-8"

COKE & ANTHRACITE UNLOADING FACILITY

177'

20'

160'

95'

68'

132'

170'

60'

60'

119'

GREASE & O STORAG

80'

88'

80'

SS-CB-1

RODDING BUILDING

320'

250'

50'

158'

CHANGE HOUSE

MAIN

102'

20'

60'

CARPENTER SHOP

264'

50'

40'

50'

60'

70'

60'

60'

60'

70'

60'

440'

455'

CHANGE RM SHOPS ETC.

565'

BAGHOUSE

BAGHOUSE

188'

153'

114'

39'

CHANGE HOUSE

CALCINATION BLDG

818'

FUEL OIL STORAGE

HYDRATE STORAGE

AL-3

AL-2

AL-1

POT REPAIR BUILDING

2B

SS-PL-2N

2A

1B

SS-PL-1N

1A

LAB

170 ¢ ALUMINA STORAGE

KILN

HYDRATE SILTER BLDG

E 1,137,000

BAUXITE CONVEYOR

BASE LINE C-J

E 1,138,000

905'

24'

140'

160'

50

40

30

C

PROPOSED PACIFIC POWER & LIGHT CO. SUBSTATION

80'

STORAGE AREA

WAREHOUSE

80'

100'

123'57"

190'

40'

30

20

10

175'

PARKING

GREASE & OIL STORAGE

60' 60' 113' 322' 55'

125'

145'

300'

MAINTENANCE SHOP

GATE HOUSE

CARPENTER SHOP 264'

362'

180'

CHANGE RM. SHOPS ETC.

270'

102.45 92.55 49.50 95.50

195' 145' 210'

50'

20'

1565'

75'

AUXITE STORAGE

AL-3
AL-2
AL-1

FUEL OIL STORAGE

HYDRATE STORAGE

45'

STORAGE TANK

STEAM PLANT

CENTRAL CONTROL RM.

BAUXITE GRINDING & SLURRYING

815'

SEWAGE TREATMENT PLANT

GRINDING AND DIGESTION AREA

DUST COLLECTOR

KILN

UNIT SUBST.

OREGON STATE HIGHWAY 101 & 126

105

E 1,139,000

160'

PROPOSED PACIFIC POWER & LIGHT CO. SUBSTATION

PARKING

SEWAGE TREATMENT PLANT

OREGON STATE HIGHWAY 101

N 924,000

N 923,000

A

B

C

POT REPAIR BUILDING

2B

2A

1B

1A

BAGHOUSE

55-PL-2N

55-PL-1N

ROOM

POT

OFFICE

55-PL-2S

55-PL-1S

CHANGE HOUSE

CALCINATION BLDG

FUEL OIL STORAGE

HYDRATE STORAGE

AL-3

AL-2

AL-1

170' ϕ ALUMINA STORAGE

LAB

KILN

HYDRATE FILTER BLDG

ACID STOR

ADDITIVE CHEM. STORAGE & PREP. AREA

CRYOLITE BIN

FLUORIDE BIN

COOLING TOWER

PRECIPITATION AREA

SEE DRAWING 250-1001

COVERED DRIVEWAY

POT HOUSE

FUTURE EXPANSION

526'

650'

200'

RECTIFIER & SUBSTATION

UTILITY SUBSTATION

METAL STORAGE & LOADING AREA

BONNEVILLE POWER ADMINISTRATION MILLER SUBSTATION

BONNEVILLE POWER ADMINISTRATION CAPACITOR YARD

405'

39'

74'

23'

150'

340'

27'

332'

STORAGE

AL-3
AL-2
AL-1

75'

OIL
AGE

URATE
ORAGE

453'

DUST COLLECTOR

HYDRATE
FILTER BLDG.

DDITIVE CHEM.
ORAGE & REP. AREA

STORAGE TANK

STEAM PLANT

CENTRAL CONTROL RM.

UNIT SUBST.

OFF. LAB.

BAUXITE GRINDING & SLURRYING

818'

GRINDING AND DIGESTION AREA

SEWAGE TREATMENT PLANT

HIGHWAY 101

105'

UNIT SUBSTA.

FILTRATION BLDG

COOLING TOWER

TION AREA
NG 250-1001

RED MUD SETTLING

PARKING

ADM. BLDG.

130'

378'

FUTURE EXPANSION

526'

195'

145'

FUTURE EXPANSION

210'

335'

896'

45'

85'

40'

N 922,000

N 921,000

375'

96'

HIGHWAY 101 & 25

SEWAGE TREATMENT PLANT

ADM BLDG

PARKING

130'

105'

935'

85'

45'

D

E

N 921,000

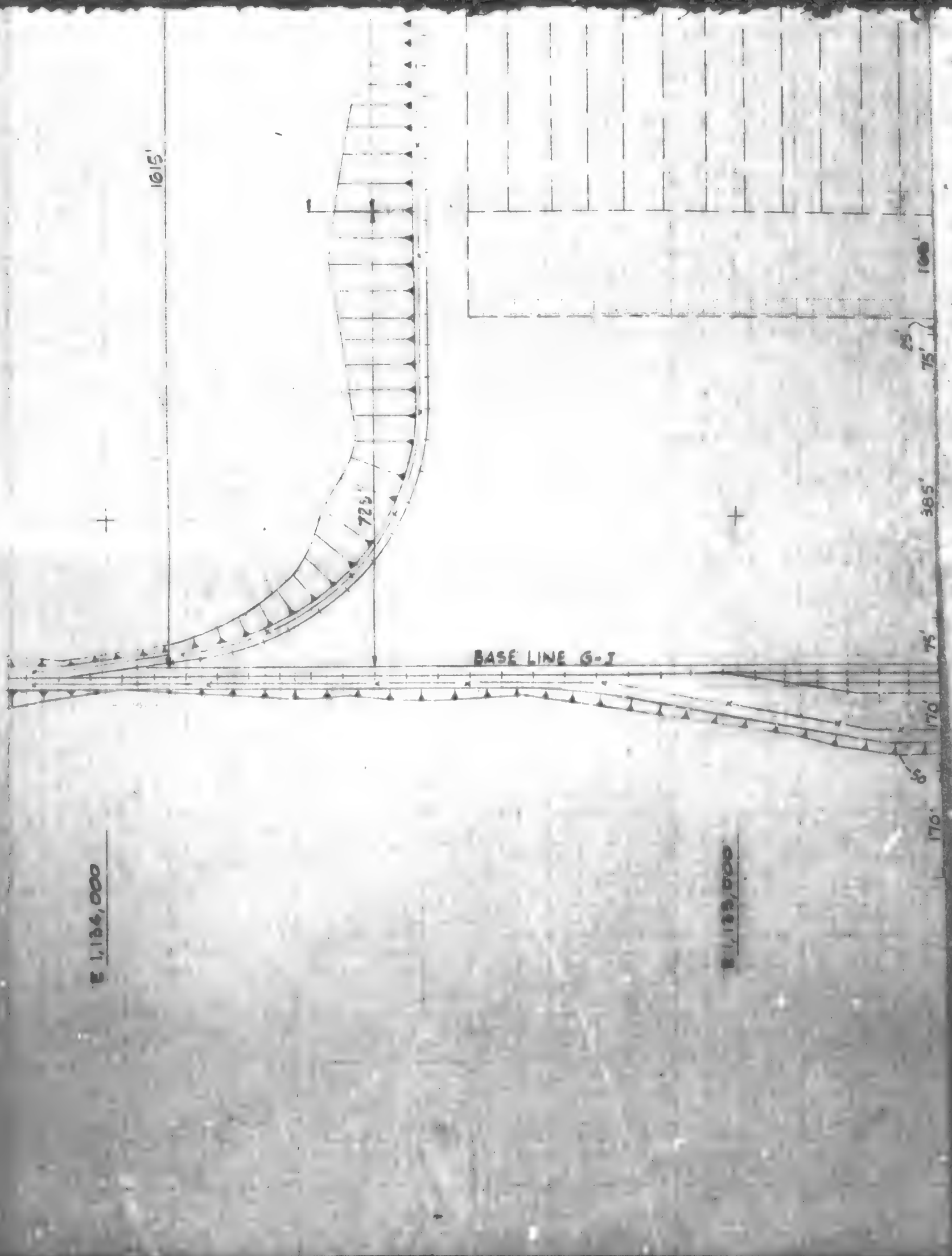
E 1,133,000

REFERENCES	DWG NO.	DESCRIPTION

REFERENCES	DWG. NO	DESCRIPTION

GRAPHIC CONTROLS CORP., BROOKLYN, N. Y. 11217 ASTROFILM 675.2 15233

1 2


1615'
725'
BASE LINE G-I
75'
385'
75'
170'
170'
E 1,134,000
E 1,133,000

| | | |

POT

BAGHOUSE

POT

POT

BAGHOUSE

POT

150'

CAST

650'

FUTURE EXPANSION

526'

82'

23' 39'

200'

RECTIFIERS SUBSTATION

UTILITY SUBSTATION

METAL STORAGE & LOADING AREA

BONNEVILLE POWER ADMINISTRATION MILLER SUBSTATION

9'

896'

G

35.46'

540'

27'

332'

H

BONNEVILLE POWER ADMINISTRATION CAPACITOR YARD

191'

420'

571'

DRISCOLL

CLATSOP

NO	DATE	
M	10/22/68	FOR INFO
L	8/8/68	
K	8/2/68	
J	6/18/68	
H	5/29/68	
G	1/25/68	FOR INFO
F	1/3/68	
E	11/30/67	

PRELIMINARY

(NOT FOR CONSTRUCTION)

NO	DATE	DESCRIPTION

DRAWN BY	
CHECKED BY	
APP. DEPT. HD	
APP. PROJ. MGR.	
APP. CLIENT	

[illegible]

ENGINEER

26 BROADW

4 3

FUTURE EXPANSION

526'

195'

145'

FUTURE EXPANSION

210'

535'

896'

J

45'

85'

40

30

20

10

M	10/22/68	FOR INFORMATION ONLY		RHR
L	[illegible]	[illegible] MATION ONLY		RHR
K	[illegible]	[illegible] MATION ONLY		RHR
J	[illegible]	[illegible] MATION ONLY		RHR
H	[illegible]	[illegible] MATION ONLY		RHR
G	[illegible]	[illegible] MATION ONLY		RHR
F	[illegible]	[illegible] MATION ONLY		RHR
E	[illegible]	[illegible] FOR INFORMATION ONLY		RHR
[illegible]	[illegible]	PRELIMINARY ISSUE	DEPT HD APPROVED	PROJ MGR.

ITEM	NO REQ.	DESCRIPTION	MATL.
		BILL OF MATERIAL	

[illegible]-IVERSEN CORPORATION

ENGINEERS & CONSTRUCTORS

26 BROADWAY NEW YORK, N.Y.

NORTHWEST ALUMINUM
CLATSOP PR

CLATSOP COUNTY

PLANT AREA

PLOT PLAN

0

6

MAT'L	LOCATION	MARK NO.	DETAIL ON SHT.

BILL OF MATERIAL

NORTHWEST ALUMINUM COMPANY, INC.

CLATSOP PROJECT

CLATSOP COUNTY

NOV 20 19[illegible]

SCALE: 1"=200'

PLANT AREA
PLOT PLAN

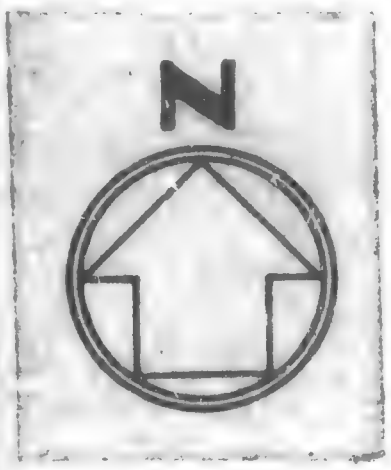
000-3803

△

6 Clarify location of portable structure & dimensions on retaining walls

7

SCALING RULES



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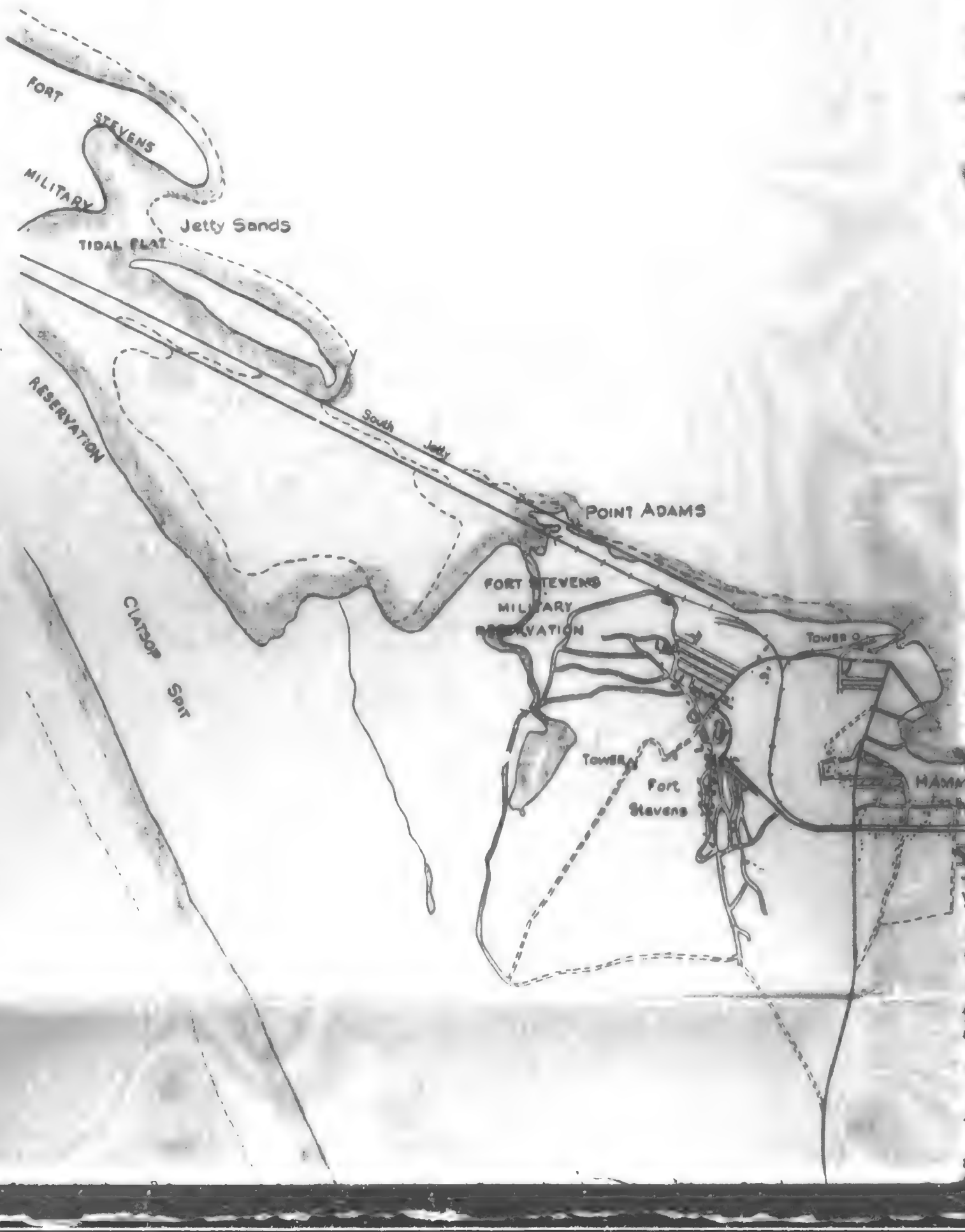


B

C

WASHINGTON
OREGON

DESDEMONA

POINT ADAMS
COAST GUARD STA.

PORTLAND

TANSY POINT

TOWER

10 11 12 13 14 15 16 17 18 3" 8 0 1 2 3 4 5 6 7 8 9 10 11 1/2

PACIFIC CO
CLATSOP CO

Point Ellice

WASHINGTON
OREGON

PACIFIC CO
CLATSOP CO

ASTORIA BRIDGE

COLUMBIA

CABLE AREA

SANDS

CHANNEL

ASTORIA

RIVER

U M B I A

TONGUE POINT CHANNEL

US COAST GUARD ST

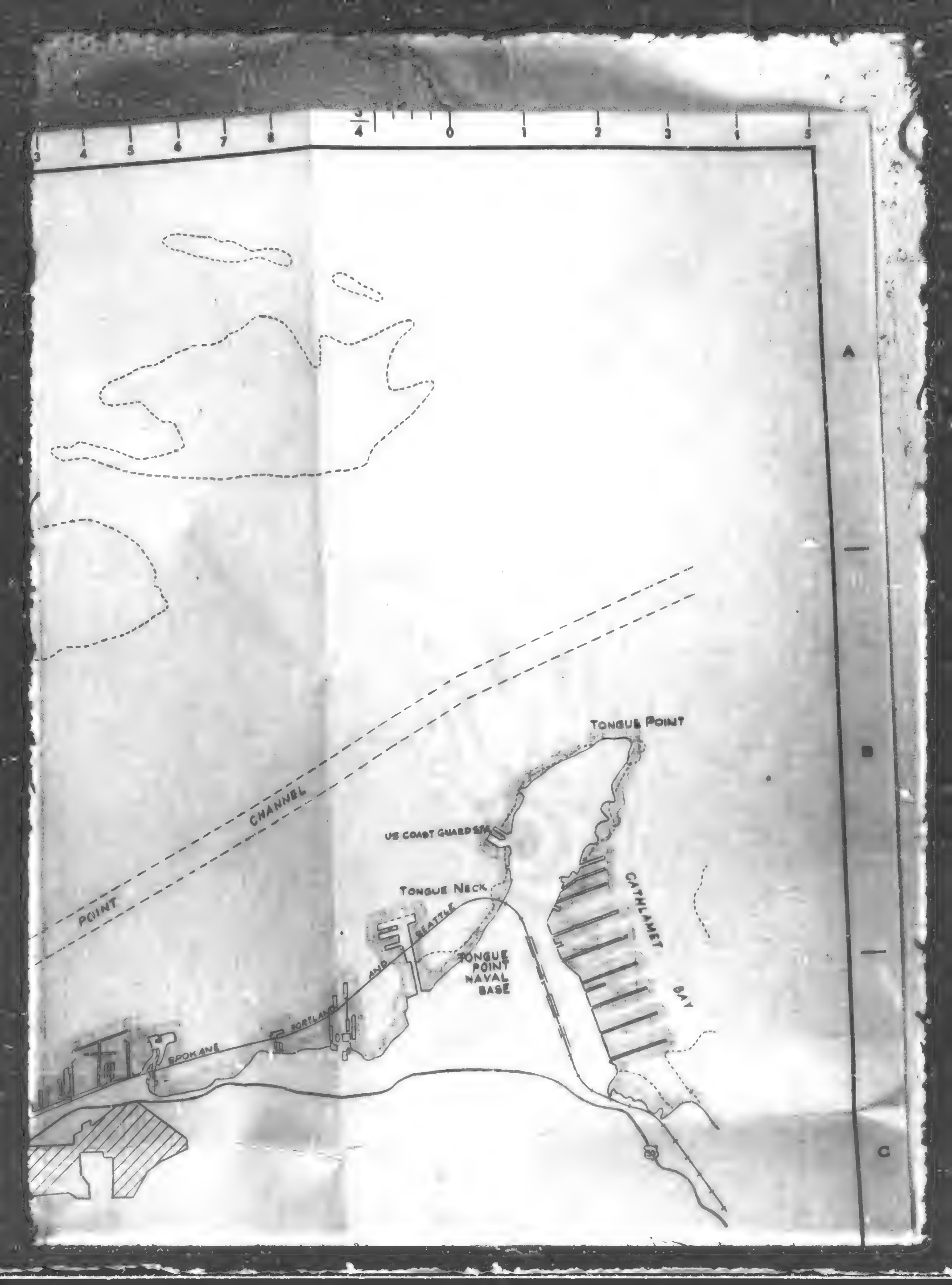
TONGUE NECK

SEATTLE

PORTLAND

SPOKANE

AREA


CHANNEL
POINT
TONGUE POINT
US COAST GUARD STA
TONGUE NECK
SEATTLE
AND
PORTLAND
SPOKANE
TONGUE POINT NAVAL BASE
CATHLAMET BAY
A
B
C

Beach

Columbia

PACIFIC OCEAN

HAMMOND

POINT ADAMS COAST GUARD STA.

SPOKANE PORTLAND

TANSY POINT

TOWER

TIDAL FLAT

SEATTLE CREEK

SKIPANON WATERWAY

SKIPANON WATERWAY LIGHT

ALDER

WARRENTON

WARRENTON SCHOOL

SKIPANON

SLOUGH

PLANT SITE

SPOKANE PORTLAND

SAND CR.

RIVER

OLD SKIPANON CR.

CAMP CLATSOP MILITARY

OREGON STATE

CABLE AREA

SANDS HT

CHANNEL

ASTORIA

SMITH POINT

YOUNGS BAY ENTRANCE LIGHT

YOUNGS BAY

YOUNGS BAY BRIDGE

YOUNGS BAY LIGHT

RUSSIAN POINT

CLATSOP COUNTY AIRPORT

OREGON COAST HIGHWAY

LEWIS AND CLARK RIVER

LEWIS AND CLARK ROAD

HIGHWAY

TO

SPOKANE

PORTLAND

VAL
DAGE

SSIAN
POINT

YOUNGS

RIVER

WAKLUSKI

RIVER

BAY
THLAMET
TONGUE POINT NAVAL BASE
SPOKANE

WALLOWA
RIVER

(OREGON STATE

Beach

Columbia

OCEAN

PACIFIC

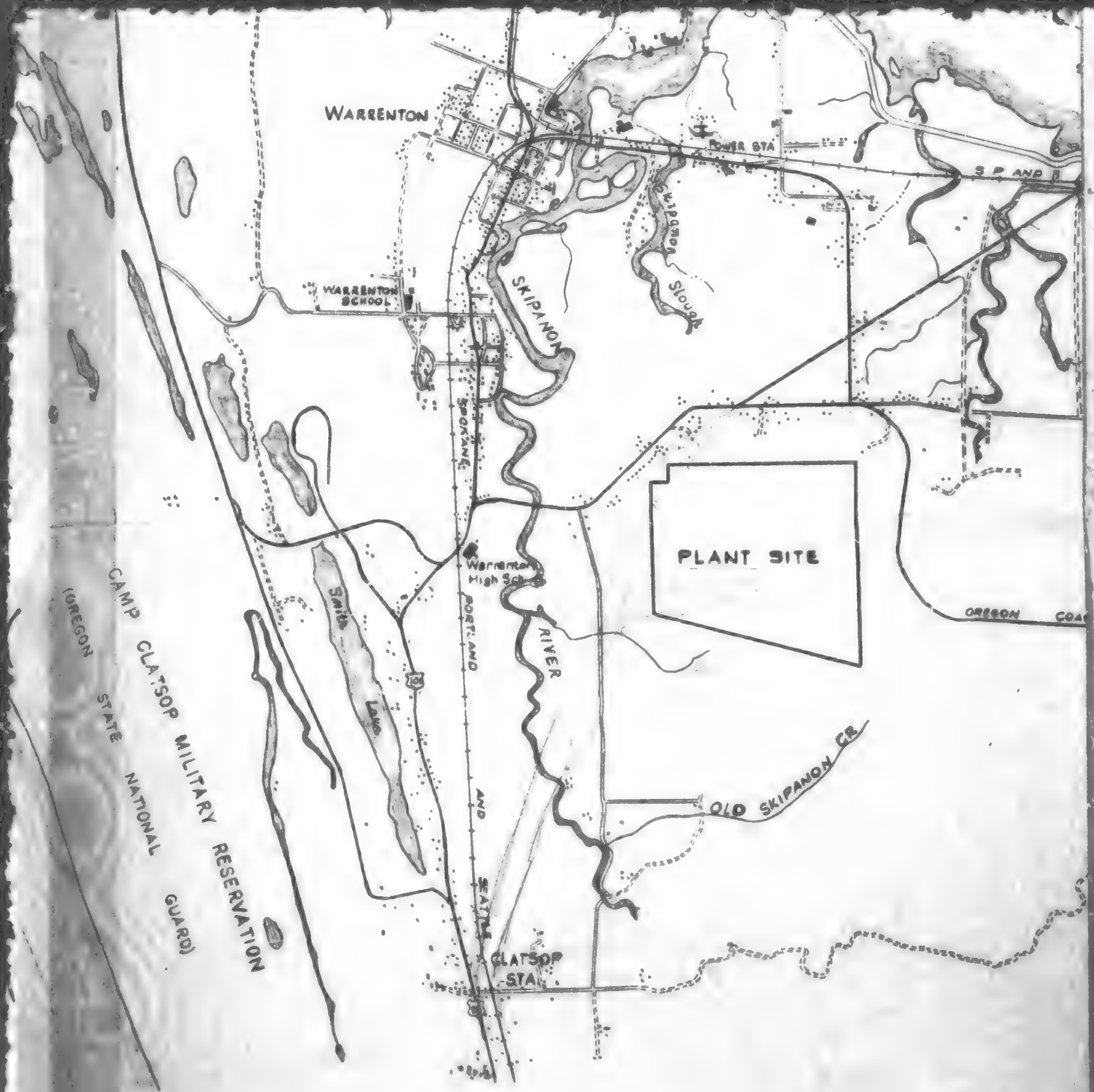
REVISIONS			
DWG. NO.	DESCRIPTION		
REFERENCES			

REFERENCES			
DWG. NO.	DESCRIPTION		
REFERENCES			

2

1

OGILVIE PRESS DIVISION GRAPHIC CONTROLS CORP. ASTROFILM 675.3



	BY	CK.	APP.	APP.	CLIENT	DATE	DESCRIPTION
4							
3							
2							
1							

REVISIONS

NO.	BY	CK.	APP.	APP.	CL
1					
2					
3					
4					

2 | 3 |

PRELIMINARY

(NOT FOR CONSTRUCTION)

NO.	DATE	DESCRIPTION
A	12-7-67	FOR INFORM

DRAWN BY	J. REEVES
CHECKED BY	
APP. DEPT. HD	
APP. PROJ. MGR.	
APP. CLIENT	

PARSONS-J
ENGINEERS
26 BROADW

4 5

ITEM	NO. REQ.	DESCRIPTION	MAT'L	LOCATION

BILL OF MATERIAL

NORTHWEST ALUMINUM COMPA
CLATSOP PROJECT

CLATSOP COUNTY

FOR INFORMATION ONLY		RVR
PRELIMINARY ISSUE	DEPT. HD	PROJ. MGR.
	APPROVED	

SCALE: 1 : 24000

PROJECT PLOT PLAN

000-3

[illegible] CORPORATION
ENGINEERS & CONSTRUCTORS
BROADWAY NEW YORK, N.Y.

ITEM	NO. REQ.	DESCRIPTION	MAT'L	LOCATION	MARK NO.	DETAILED ON DWG.	REQ'N

BILL OF MATERIAL

NORTHWEST ALUMINUM COMPANY, INC.
CLATSOP PROJECT

CLATSOP COUNTY

OREGON

SCALE: 1: 24000

JOB NO. 4647.0

REV. NO.

PROJECT PLOT PLAN

000-3801

A

NOV 2016

6 7

RECEIVED
JUL 21 1971
FORM E-30 (12-67)

FOR FILING

8949

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
June 24, 1971

B/up 7/1
~~7/1~~

SUBJECT: S. Unit, Astoria-Camp Rilea
Oregon Coast Highway
Clatsop County

To: F. B. Klaboe
Asst. State Highway Engineer

B U I L D I N G

Reference is made to Mr. Edwards' letter of June 14 and our telephone discussion of June 16 and the attached memorandum from Eldon Everton dated June 4.

A check with right of way descriptions indicates all descriptions on the westerly route were submitted to the right of way section. Four parcels were acquired and are indicated on the right of way map.

Vern Skoog advises final billing to AMAX is not complete but only about $79 remains to be billed.

It appears that our original agreement with N.W. Aluminum Company was in letter form signed by both parties (copy attached). Since costs involved will now be different it would appear that a new agreement would be in order which would reflect the current estimated costs for right of way.

Two items should be resolved: First, verify AMAX's wish for a westerly route; second, negotiate an agreement with AMAX for reimbursement of costs (letter form as used with N.W. Aluminum Company with cost corrections may be satisfactory).

Please advise your wishes in this matter.

Frank L. Hall
Design Engineer
By:

NOTED
F. B. KLABOE

RECEIVED
JUN 24 1971
OFFICE OF
STATE HIGHWAY ENGINEER

George C. Wills
Chief Locating Engineer

GCW:jf
Attachment
cc: D. H. Moehring

4-05

FORM E-302—50M—1-68 SP 19102-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

RECEIVED JUN 7 1971 ROUTING
ASBURRY ☐ WIMER ☐ HOPKINS ☐
CANFIELD ☐

1
2 Rod
3 Gene Hallaux
4 Work

Astoria, Oregon
4 June 1971

Do Not File
Keep
Return to

To: Memo to Files

SUBJECT: Oregon Coast Highway
Warrenton to Seaside

On Thursday morning, 3 June 1971, I received a call from Mr. Gene Hallaux, the manager of the local Chamber of Commerce, at which we discussed the Oregon Coast Highway between Warrenton and Seaside.

He informed me that the City of Warrenton was pushing hard for improvements on this section of road and was ready to send a delegation to Salem to plead their case and to try to get some sort of action started. He told me that he had persuaded this group to hold off for a while and today he had a meeting scheduled with Mr. Ted Briggs, the representative of AMAX, and with Mr. Baldwin, the City Manager and Judge of Warrenton, to discuss this matter and would like for me to attend.

At 2:00 p.m. we met at the AMAX office on Jetty Street in Warrenton with Mr. Hallaux and the above mentioned people. It was discussed that the section they would like to see go first would be the south unit of the Astoria-Camp Rilea section. The aluminum company is very much for this improvement and will want the relocated route that was moved further to the west to miss their grounds as the route to follow.

AMAX feels that their plans are definite enough that they will be able to purchase all land needed and make whatever exchanges that are necessary with the Highway Division to get the road relocation started. They feel that they have the railroad spur problem settled so that it will not affect the highway and are willing to cooperate with the Highway Division to the fullest to get the project started.

Mr. Briggs of AMAX stated that he was to have dinner with Mr. Glenn Jackson within two weeks and would, at that time, let Mr. Jackson know of their plans and desires and see if it would be possible to get Mr. Jackson to take steps to get this project going.

Mr. Hallaux stated that he had written Mr. Rod Porter requesting a meeting with a representative of the Oregon State Highway Division in Astoria to discuss this matter. He stated that he had recommended that the meeting be with Mr. Asburry.

AMAX is going to do all they possibly can prior to this meeting and have available for the meeting what they will be willing to do regarding right of way. Mr. Baldwin and his group will hold off till after the meeting.

It appears that they are all willing to make a joint effort to try and get improvements made on the road between Warrenton and Seaside and are pushing for the south unit of the Astoria-Camp Rilea section as they feel that the present highway cannot safely handle the volumne of traffic that is now on it.

Eldon L. Everton
DISTRICT ENGINEER

ELE:jv

R.O. Asburry

cc Frankhauser

NOTED JUN 9 1971
GERALD WIMER

RECEIVED
SEP 15 1970
ATTORNEY GENERAL
FOR FILING

Roll
8949

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

507 State Highway Building

August 31, 1970

Mr. Clifford B. Alterman
Kool & Alterman
Attorneys at Law
1107 Commonwealth Building
Portland, Oregon 97204

Re: B-35423 Northwest Aluminum Company, Inc.
Proposed Right of Way Agreement
Your File No. 814-13

Dear Mr. Alterman:

As per your request of Mr. Fred Klaboe, Assistant Highway Engineer, I forward you herewith original and copy of a proposed Right of Way Agreement between the State of Oregon, by and through its State Highway Commission and Northwest Aluminum Company, Inc.

This agreement, dated July 10, 1970, while executed by an official of Northwest Aluminum Company, Inc., was not executed by the State Highway Commission, due to errors therein contained.

I now understand Northwest Aluminum Company, Inc. has been taken over by Amax Corporation and the new company has no need for the land, the subject matter of the agreement being returned herewith.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas
Assistant Attorney General
and Counsel to Highway Division

RECEIVED
R. L. PORTER

LIL:bg
Attachments
cc - Mr. R. L. Porter
Mr. F. B. Klaboe
Mr. D. H. Mockring

RECEIVED
AUG 31 1970
OFFICE OF
STATE HIGHWAY ENGINEER

ENGINEER
AUG 28 1970
ENGINEERING
8949

Salem, Oregon 97310
August 28, 1970

South Unit Astoria-Camp
Rilea Section, US101

Mr. D. J. Barbee
Design Engineer
BUILDING

Northwest Aluminum has been taken over by Amax Corporation (Climax Corporation). Mr. Clifford Alterman, the local attorney for the Company, advised me yesterday that the new company does not need the land that we were to provide by a line change. We are therefore to change everything back to the original line. This means, of course, that we will have to deal with someone for the extra right-of-way we needed on the original line.

Please also check our records for any outstanding costs that Northwest Aluminum owes us and bill them immediately.

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

cc: R. L. Porter
Tom Edwards
Leonard Lindas
V. E. Skeog) - There are some right-of-way costs
D. N. Moehring) - that should also be added.
N. S. Cox
R. D. Asburry

RECEIVED
AUG 28 1970
FOR FILING

2949

August 27, 1970

Mr. Clifford B. Alterman
Keel & Alterman
Attorneys at Law
1107 Commonwealth Building
Portland, Oregon 97204

Dear Mr. Alterman:

Reference is made to your telephone call this date concerning our proposed line change for the convenience of the Northwest Aluminum Company, Inc., on the South Unit Astoria-Camp Rilea Section of US101.

You advised us that the new owners have reversed the decision and do not want a line change. We will therefore move back to the original line and total up our outstanding charges and forward bills for them immediately.

As requested, our Chief Council, Leonard Lindas, will return the signed property agreements directly to you.

Very truly yours,

R. L. Porter
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb
Richard E. Peck

cc: R. L. Porter
Tom Edwards
Leonard Lindas
V. E. Skoog
H. S. Cox
D. H. Moehring
D. J. Barbee
R. D. Asburry

LEE JOHNSON
ATTORNEY GENERAL

STATE OF OREGON
DEPARTMENT OF JUSTICE
SALEM, OREGON 97310

507 State Highway Building

August 20, 1970

Mr. Clifford B. Alterman
Kell & Alterman
Attorneys at Law
1107 Commonwealth Building
Portland, Oregon 97204

Re: R-35423 - Northwest Aluminum Company, Inc.
Astoria-Camp Riles Section - Oregon Coast Highway
Your File No. 814-13

Dear Mr. Alterman:

The proposed agreement, to be entered into by the State and Northwest Aluminum Company, was recently forwarded to me for approval as to content and form.

In reviewing the same I noted that tracts 2, 3, 4 and 5 of parcel 3 were erroneously included in parcel 3 and will have to be deleted. Additionally, one property that should have been included in parcel 3 was omitted.

Further, on page 15 of the originally prepared agreement, reference is made to the State conveying parcel 1 to Northwest Aluminum Company by "warranty" deed. We take the position the State must issue only a "Bargain and Sale" deed.

You will further note paragraph 5 has also been rewritten to conform to the true facts. References to the value of parcel 2, in paragraph 5 in the original agreement, submitted to you, as well as the credit amount, were incorrect.

I am, therefore, forwarding you herewith a rewritten agreement with corrections, which I would appreciate you reviewing and re-submitting to your client for execution.

While a member of our staff made a rough draft of a portion of the agreement in the first instance, the completed document transmitted to you was never submitted to the legal staff for review until you returned the same.

I am extremely sorry we must ask you to again review the attached agreement and submit the same to your client for execution.

Should you have any questions concerning the new agreement, please feel free to call upon me.

Very truly yours,

LEE JOHNSON
Attorney General

L. I. Lindas
Assistant Attorney General
and Counsel to Highway Division

LIL:hg
Enclosure

RECEIVED
AUG 20 1970
OFFICE OF
STATE HIGHWAY ENGINEER

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

CABLE ADDRESS
"THEQUITY-NEW YORK"

July 10, 1970

BW
9-3

Mr. Fred B. Klaboe
Assistant State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Dear Fred:

This is to acknowledge and thank you for your letter of July 2, 1970, addressed to Clifford Alterman with respect to the relocation of U.S. Highway No. 101.

Based upon the understanding contained in our letter agreement dated December 5, 1968, as amended by letter dated August 18, 1969, and your letter of July 2, 1970, all of which limit our expenditures to not more than $83,500.00, we have executed and return herewith two copies of the Agreement with respect to this matter. A certified copy of a resolution by the Board of Directors will be furnished next week in lieu of the Certificate on page 18 of the Agreement.

Will you kindly have the Agreement executed on behalf of the Oregon State Highway Commission and return one fully executed copy to us.

Thank you very much for your cooperation in this matter.

Sincerely yours,

Richard E. Peck

Richard E. Peck
Executive Vice President

RECEIVED
AUG 5 1970
OFFICE OF
STATE HIGHWAY ENGINEER

8-11
Lindas is reworking it - discussing w/ alterman

REP:ca

orig file to Lindas for sig.
8-6

RECEIVED
JUL 3 - 1970
FOR FILING

8949

July 2, 1970

Mr. Clifford B. Alterman
Kell & Alterman
Attorneys at Law
1107 Commonwealth Building
Portland, Oregon 97204

Dear Mr. Alterman:

Re: Your File No. 814-17
Northwest Aluminum

At the latest meeting we held here in Salem concerning the acquisition of right-of-way, we agreed that the intent of our agreement was that the Northwest Aluminum Company would pay the entire cost of shifting our line to miss their proposed facility.

In this regard, we believe that the total cost of the new, private right-of-way would amount to approximately $99,000, with a credit to you of $45,000 representing the value of the land that you are going to give us over the value of the land we are going to give you, for a total right-of-way cost to you of approximately $54,000. Added to what you have already paid us, this will bring the total estimated cost for the entire project to a grand total of about $79,000--still well within our original estimate of $83,500.

Therefore, we do not believe that it would be appropriate to add a maximum dollar amount to the existing agreement and we hope that you will sign this agreement and forward it to us at the earliest date so that we can proceed. Prices keep going up, you know, and the longer we wait, the more costly the right-of-way will be.

Very truly yours,

R. L. Porter
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

bc: R. L. Porter
Tom Edwards
V. E. Skoog
D. H. Moehring
R. D. Asburry

FBK:srb

cc: Richard Peck

KELL & ALTERMAN
ATTORNEYS AT LAW
1107 COMMONWEALTH BUILDING
PORTLAND, OREGON 97204

RAYMOND M. KELL
CLIFFORD B. ALTERMAN
TED E. RUNSTEIN

TELEPHONE 223-6158
CABLE: "KELMAN"

June 28, 1970

Mr. Fred Klaboe
Assistant State Highway Engineer
Oregon State Highway Division
Highway Building
Salem, Oregon 97310

Re: Our File No. 814-17
Northwest Aluminum

Dear Mr. Klaboe:

Thank you for your letter of June 23. The papers are all in order, except my recollection is that we had an agreement on a maximum dollar amount. Can this be incorporated within these agreements?

Very truly yours,

Clifford B. Alterman

CBA/lcw
cc: Mr. Richard E. Peck

RECEIVED
JUN 23 1970
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 24 1970
FOR FILING

8949

June 23, 1970

AIRMAIL
Mr. Richard E. Pack
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway
New York, New York 10004

Dear Mr. Pack:

On February 20, we forwarded you agreements covering the purchase of the additional right-of-way for the South Unit of the Astoria-Camp Rilea Section of the Oregon Coast Highway in Clatsop County. To date, we have heard nothing further from you on this matter and we were wondering what the status of the situation is.

There is some activity on property needed for the revised line and, if you are going to go ahead with the project, we would like to finalize the agreement and acquire the right-of-way at the earliest possible date.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

cc: Clifford B. Alterman
Forrest Cooper
R. L. Porter
V. E. Skoog
D. H. Moehring
R. D. Asburry

RECEIVED
JUN 24 1970
FOR HEARING

cc F. B. Klaboe

Comm
8949

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE
Salem 97310
June 19, 1970

To: Mr. Rod J. Henry
District R/W Supervisor

EAST SALEM HIGHWAY BUILDING

SUBJECT: 44035 & 44038
Astoria-Camp Rilea Sec.
Oregon Coast Highway
Clatsop County

Please inform the County that we cannot send the subject options to the Commission until we have an agreement with the Northwest Aluminum Company.

ORIGINAL SIGNED
JOHN R. OAKES

John R. Oakes
Assistant Right of Way Engineer

JRO:GZ

cc F. B. Klaboe

NO F.B. Kla...

RECEIVED
JUN 19 1970
OFFICE OF
STATE HIGHWAY ENGINEER

MAY 15 1970

FOR FILE

8949

May 15, 1970

Mr. Clifford B. Alterman
Kell and Alterman
Attorneys at Law
Commonwealth Building
Portland, Oregon 97204

Dear Mr. Alterman:

On February 20, I forwarded you copies of an agreement concerning an exchange of property between the Northwest Aluminum Company and the Oregon State Highway Commission in connection with the proposed Company development in Clatsop County. So far, I have had no reply to this transmittal.

There is apparently some activity in the area to be acquired that leads us to believe it would be expedient, and probably save some money, if we could consummate the agreement now and go ahead with the acquisition of the properties involved.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klabee
Assistant State Highway Engineer

FBK:srb

cc: Forrest Cooper
R. L. Porter
V. E. Skoog
D. H. Moehring
R. D. Asburry

RECEIVED
FEB 20 1970
FOR FILING

8949

February 20, 1970

Mr. Clifford B. Alterman
Kell and Alterman
Attorneys at Law
Commonwealth Building
Portland, Oregon 97204

Dear Mr. Alterman:

I enclose three copies of an agreement concerning the exchange of property between the Northwest Aluminum Company, Inc., and the Oregon State Highway Commission in connection with the Northwest Aluminum Company development plans in Clatsop County.

Please analyze the contents of this agreement and, if found satisfactory, sign two copies and return to me.

After the Commission has approved the document, a fully executed copy will be returned to you for your files.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:srb

Enclosures

cc: Forrest Cooper
R. L. Porter
V. E. Skoog
D. H. Moehring
R. D. Asburry

A G R E E M E N T

THIS AGREEMENT, made and entered into this _____ day of _____, 1970, by and between the State of Oregon, by and through its State Highway Commission, hereinafter called "State"; and Northwest Aluminum Company, Inc., a Delaware corporation, hereinafter called "Company";

W I T N E S S E T H:

WHEREAS, State is the owner in fee simple of a certain parcel of land in Clatsop County, Oregon, described as follows:

A parcel of land lying in Section 27; in Section 28 and in Section 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 272, Page 517; Book 288, Page 339; Book 288, Page 410; Book 289, Page 455; Book 289, Page 602 and in Book 292, Page 687, all of Clatsop County Record of Deeds and a portion of that property conveyed by that certain Final Judgment dated June 19, 1967 and filed in the Circuit Court of the State of Oregon, for the County of Clatsop, wherein the State of Oregon, by and through its State Highway Commission was the plaintiff and Hollum L. Hunley et al were the defendants and bearing Case No. 26287; the said parcel being that portion of said property lying Northerly of the South line of the Solomon Smith D.L.C. No. 40, Township 8 North, Range 10 West, W.M.; Southerly of S. E. 13th Street in the City of Warrenton and Easterly of the following described line:

Beginning at a point opposite and 145 feet Southeasterly of Engineer's Station "L3" 181+00 on the center line of the relocated Oregon Coast Highway; thence Southwesterly in a straight line to a point opposite and 180 feet Southeasterly of Engineer's Station "L3" 186+00 on said center line; thence Southwesterly in a straight line to a point opposite and 120 feet Southeasterly of Engineer's Station "L3" 187+50 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 203+39.45; thence Southerly in a straight line to a point opposite and 150 feet Easterly

THIS AGREEMENT, made and entered into this _____ day of _____, 1970, by and between the State of Oregon, by and through its State Highway Commission, hereinafter called "State"; and Northwest Aluminum Company, Inc., a Delaware corporation, hereinafter called "Company";

W I T N E S S E T H:

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Beginning at a point opposite and 145 feet Southeasterly of Engineer's Station "L3" 181+00 on the center line of the relocated Oregon Coast Highway; thence Southwesterly in a straight line to a point opposite and 180 feet Southeasterly of Engineer's Station "L3" 186+00 on said center line; thence Southwesterly in a straight line to a point opposite and 120 feet Southeasterly of Engineer's Station "L3" 187+50 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 203+39.45; thence Southerly in a straight line to a point opposite and 150 feet Easterly of Engineer's Station "L3" 206+00 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 213+00; thence Southerly in a straight line

to a point opposite and 120 feet Easterly of Engineer's Station "L3" 219+00 on said center line; thence Southerly in a straight line to a point opposite and 200 feet Easterly of Engineer's Station "L3" 221+20 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 260+00.

The center line referred to herein is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 5807.33 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78.

ALSO that portion of the vacated streets in the HERRING - ELLIOTT ADDITION TO WARRENTON inuring to said property lying Easterly of the heretofore described line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 16.1 acres, more or less.

For convenience, said parcel is herein referred to as "Parcel 1"; and

WHEREAS, Company is the owner in fee simple of a certain parcel of land also in Clatsop County, Oregon, described as follows:

A parcel of land lying in Sections 27, 28 and 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to the Northwest Aluminum Company, recorded in Book 305, Page 81 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land variable in width, lying on each side of the center line of the Oregon Coast Highway as said highway has been

point opposite and 200 feet Easterly of Engineer's Station "L3" 221+20 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 260+00.

The center line referred to herein is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 5807.33 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78.

ALSO that portion of the vacated streets in the HERRING - ELLIOTT ADDITION TO WARRENTON inuring to said property lying Easterly of the heretofore described line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 16.1 acres, more or less.

For convenience, said parcel is herein referred to as "Parcel 1"; and

WHEREAS, Company is the owner in fee simple of a certain parcel of land also in Clatsop County, Oregon, described as follows:

A parcel of land lying in Sections 27, 28 and 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to the Northwest Aluminum Company, recorded in Book 305, Page 81 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land variable in width, lying on each side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 5807.33 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78.

The widths in feet of the strip of land above referred to are as follows:

Station	to Station	Width on Easterly Side of Center Line	Width on Westerly Side of Center Line
"L3"187+50	"L3"203+39.45	120	115
"L3"203+39.45	"L3"206+00	120 taper to 150	115
"L3"206+00	"L3"211+00	150	115
"L3"211+00	"L3"213+00	150	115 taper to 240
"L3"213+00	"L3"219+00	150 taper to 120	240
"L3"219+00	"L3"221+20	120 taper to 200	240
"L3"221+20	"L3"222+50	200	240 taper to 150
"L3"222+50	"L3"260+00	200	150

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 25.8 acres, more or less.

For convenience, said parcel is herein referred to as "Parcel 2"; and

WHEREAS, State desires to acquire fee title to Parcel 2 and to utlize the same for highway right of way purposes; that in order to utilize said Parcel 2 for highway right of way purposes it is necessary that the State acquire title to the following parcels of real property in Clatsop County, Oregon, described as follows:

1. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to James Selby Stringham and Mildred Gladys Stringham, [illegible] 206, Page 365 of Clatsop

[illegible] Sparks and Lena to the [illegible]
corner of Block 53, Gearhart Park, Clatsop
County, Oregon, thence South 89° 58' West 111.2
feet, thence on a spiral curve Left (the long
chord of which bears South 89° 58' West, 30 feet)
thence on a 573.7' foot radius curve Left (the
long chord of which bears South 45° 29' 30" West,
84.6 feet, thence on a spiral curve Left (the
long chord of which bears South 0° 59' West)
600 feet, thence South 0° 59' West 200.2
feet, thence on a spiral curve Left (the long
chord of which bears South 22° 29' 45" West)
175 feet to Engineer's center line Station "L"
268+96.72.

The widths in feet of the strip of land above referred to are as follows:

Station	to Station	Width on Easterly Side of Center Line	Width on Westerly Side of Center Line
[illegible]	[illegible]	120	115
[illegible]	[illegible]	120 taper to 150	115
[illegible]	[illegible]	150	115 taper to 240
[illegible]	[illegible]	150	240
[illegible]	[illegible]	150 taper to 120	240
[illegible]	[illegible]	120 taper to 200	240 taper to 150
[illegible]	[illegible]	200	150
[illegible]	[illegible]	200	

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 25.8 acres, more or less.

For convenience, said parcel is herein referred to as "Parcel 2"; and

WHEREAS, State desires to acquire fee title to Parcel 2 and to utilize the same for highway right of way purposes; that in order to utilize said Parcel 2 for highway right of way purposes it is necessary that the State acquire title to the following parcels of real property in Clatsop County, Oregon, described as follows:

1. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to James Selby Stringham and Mildred Gladys Stringham, recorded in Book 206, Page 365 of Clatsop

County Record of Deeds; the said parcel being that portion of said property included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3"175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.36 acre, more or less.

2. A parcel of land lying in Block 18, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Block 18 included in a strip of land variable in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and 1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

The widths in feet of the strip of land above referred to are as follows:

Station	to	Station	Width on Northwesterly Side of Center Line
170+00		174+00	75
174+00		"L3"175+50	75 taper to 120
"L3"175+50		"L3"180+00	120

EXCEPT therefrom that property conveyed by that certain Final Judgment dated May 18, 1961 and filed in the Circuit Court of the State of

Westerly side of the center line of the [illegible] Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3"175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.36 acre, more or less.

2. A parcel of land lying in Block 18, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Block 18 included in a strip of land variable in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and 1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

The widths in feet of the strip of land above referred to are as follows:

Station	to	Station	Width on Northwesterly Side of Center Line
170+00		174+00	75
174+00		"L3"175+50	75 taper to 120
"L3"175+50		"L3"180+00	120

EXCEPT therefrom that property conveyed by that certain Final Judgment dated May 18, 1961 and filed in the Circuit Court of the State of Oregon for the County of Clatsop, wherein the

State of Oregon, by and through its State Highway Commission was the plaintiff and Henry C. Willener et al were the defendants and bearing Case No. 23866.

ALSO EXCEPT therefrom Lot 14 of said Block 18.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.05 acre, more or less.

3. A parcel of land lying in Lot 14, Block 18, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lot 14 included in a strip of land variable in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and 1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

The widths in feet of the strip of land above referred to are as follows:

Station	to	Station	Width on Northwesterly Side of Center Line
174+00		"L3"175+50	75 taper to 120

EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 257, Page 234 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.04 acre, more or less.

4. A parcel of land lying in Lots 1, 2, 3, 14, 15 and 16, Block 23, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lots included in a strip of land variable in width, lying on the Southeasterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

System, North Zone.

The parcel of land to which this description applies contains 0.05 acre, more or less.

3. A parcel of land lying in Lot 14, Block 18, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lot 14 included in a strip of land variable in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and 1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

The widths in feet of the strip of land above referred to are as follows:

Station	to	Station	Width on Northwesterly Side of Center Line
174+00		"L3"175+50	75 taper to 120

EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 257, Page 234 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.04 acre, more or less.

4. A parcel of land lying in Lots 1, 2, 3, 14, 15 and 16, Block 23, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lots included in a strip of land variable in width, lying on the Southeasterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and

1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

The widths in feet of the strip of land above referred to are as follows:

Station	to Station	Width on Southeasterly Side of Center Line
174+00	"L3"175+50	75 taper to 125
"L3"175+50	"L3"180+00	125

EXCEPT therefrom that property designated as Parcel 1 and described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 257, Page 194, Clatsop County Record of Deeds.

ALSO EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 257, Page 282 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.22 acre, more or less, outside of the existing right of way.

5. A parcel of land lying in Blocks 22 and 23, THE PLAZA and vacated Iredale Avenue, Clatsop County, Oregon; the said parcel being that portion of Lot 16 of said Block 22, Lots 5, 6, 7, 8 and 9 of said Block 23 and that portion of vacated Iredale Avenue inuring to said blocks lying Southeasterly of a line which is parallel with and 120 feet Northwesterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and 1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

EXCEPT therefrom that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 258, Page 35 and in Book 258, Page 40 of Clatsop County

to Engineer's center line Station L3" [illegible]

The widths in feet of the strip of land above referred to are as follows:

Station	to Station	Width on Southeasterly Side of Center Line
174+00	"L3"175+50	75 taper to 125
"L3"175+50	"L3"180+00	125

EXCEPT therefrom that property designated as Parcel 1 and described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 257, Page 194, Clatsop County Record of Deeds.

ALSO EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 257, Page 282 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.22 acre, more or less, outside of the existing right of way.

5. A parcel of land lying in Blocks 22 and 23, THE PLAZA and vacated Iredale Avenue, Clatsop County, Oregon; the said parcel being that portion of Lot 16 of said Block 22, Lots 5, 6, 7, 8 and 9 of said Block 23 and that portion of vacated Iredale Avenue inuring to said blocks lying Southeasterly of a line which is parallel with and 120 feet Northwesterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station 170+00, said station being 690.04 feet South and 1081.24 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 500.92 feet to Engineer's center line Station 175+00.92 equals "L3" 175+00.92; thence continuing South 52° 52' West 799.08 feet to Engineer's center line Station "L3" 183+00.

EXCEPT therefrom that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 258, Page 35 and in Book 258, Page 40 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.25 acre, more or less, outside of the existing right of way.

6. A parcel of land lying in Blocks 27 and 30, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said blocks lying Northwesterly of that strip of land set forth in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 292, Page 687 of Clatsop County Record of Deeds.

The parcel of land to which this description applies contains 0.87 acre, more or less.

7. A parcel of land lying in Lots 14 and 15, Block 36, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lots 14 and 15 lying Northwesterly of a line which is parallel with and 120 feet Southeasterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.05 acre, more or less.

8. A parcel of land lying in the NW¼ of Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon; the said parcel being that portion of said NW¼ lying Westerly of THE PLAZA, a subdivision in Clatsop County, Oregon; Southerly of S. E. 13th Place; Northerly of S. E. 14th Street

applies contains 0.25 acre, more or less, outside of the existing right of way.

6. A parcel of land lying in Blocks 27 and 30, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said blocks lying Northwesterly of that strip of land set forth in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 292, Page 687 of Clatsop County Record of Deeds.

The parcel of land to which this description applies contains 0.87 acre, more or less.

7. A parcel of land lying in Lots 14 and 15, Block 36, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lots 14 and 15 lying Northwesterly of a line which is parallel with and 120 feet Southeasterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.05 acre, more or less.

8. A parcel of land lying in the NW¼ of Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon; the said parcel being that portion of said NW¼ lying Westerly of THE PLAZA, a subdivision in Clatsop County, Oregon; Southerly of S. E. 13th Place; Northerly of S. E. 14th Street

and included in a strip of land 115 feet in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described in Parcel 7.

The parcel of land to which this description applies contains 0.12 acre, more or less.

9. A parcel of land lying in Lots 10 and 11, Block 1, SUBDIVISION OF TRACT 3, CHELSEA, Clatsop County, Oregon; the said parcel being that portion of said Lots 10 and 11 included in a strip of land 115 feet in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described in Parcel 7.

The parcel of land to which this description applies contains 0.16 acre, more or less.

10. A parcel of land lying in the George Davidson D.L.C. No. 39, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon; the said parcel being that portion of said D.L.C. No. 39 lying Easterly of the Easterly right of way line of the S.P. & S. Railway Co. and included in a strip of land 200 feet in width, lying on the Easterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 230+00, said station being 355.05 feet North and 634.22 feet West of the Northeast corner of Section 33, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 3146.78 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78 Back equals 268+15.28 Ahead; thence on a 1273.24 foot radius curve left (the long chord of which bears South 9° 48' 15" West) 62.41 feet; thence on a spiral curve left (the long chord of which bears South 2° 51' 15" East) 750 feet to Engineer's center line Station 276+27.69.

EXCEPT therefrom that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 272, Page 517 and in Book 292, Page 687 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 1.65 acres, more or less.

The parcel of land to which this description applies contains 0.12 acre, more or less.

9. A parcel of land lying in Lots 10 and 11, Block 1, SUBDIVISION OF TRACT 3, CHELSEA, Clatsop County, Oregon; the said parcel being that portion of said Lots 10 and 11 included in a strip of land 115 feet in width, lying on the Northwesterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described in Parcel 7.

The parcel of land to which this description applies contains 0.16 acre, more or less.

10. A parcel of land lying in the George Davidson D.L.C. No. 39, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon; the said parcel being that portion of said D.L.C. No. 39 lying Easterly of the Easterly right of way line of the S.P. & S. Railway Co. and included in a strip of land 200 feet in width, lying on the Easterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 230+00, said station being 355.05 feet North and 634.22 feet West of the Northeast corner of Section 33, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 3146.78 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78 Back equals 268+15.28 Ahead; thence on a 1273.24 foot radius curve left (the long chord of which bears South 9° 48' 15" West) 62.41 feet; thence on a spiral curve left (the long chord of which bears South 2° 51' 15" East) 750 feet to Engineer's center line Station 276+27.69.

EXCEPT therefrom that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 272, Page 517 and in Book 292, Page 687 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 1.65 acres, more or less.

11. A parcel of land lying in Block 29, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Block 29 lying Southeasterly of a line which is parallel with and 115 feet Northwesterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.62 acre, more or less.

12. A parcel of land lying in Lot 13, Block 36, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lot 13 lying Northwesterly of a line which is parallel with and 120 feet Southeasterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.1 acre, more or less.

Southeasterly of a line which is parallel with and 115 feet Northwesterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.62 acre, more or less.

12. A parcel of land lying in Lot 13, Block 36, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said Lot 13 lying Northwesterly of a line which is parallel with and 120 feet Southeasterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.1 acre, more or less.

13. Lot 12, Block 36, THE PLAZA, Clatsop County, Oregon, containing 5,000 square feet.

14. A parcel of land lying in Lots 5 through 11, Block 36, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said lots lying Southeasterly of a line which is parallel with and 115 feet Northwesterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.72 acre, more or less.

15. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in those deeds to Cleatus F. Stephens and Jennie Stephens, recorded in Book 220, Page 492 and in Book 282, Page 125 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 120 feet in width, lying on the Easterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Oregon, containing 5,000 square feet.

14. A parcel of land lying in Lots 5 through 11, Block 36, THE PLAZA, Clatsop County, Oregon; the said parcel being that portion of said lots lying Southeasterly of a line which is parallel with and 115 feet Northwesterly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.72 acre, more or less.

15. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in those deeds to Cleatus F. Stephens and Jennie Stephens, recorded in Book 220, Page 492 and in Book 282, Page 125 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 120 feet in width, lying on the Easterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

EXCEPT therefrom that property described in that deed to Walter L. Lash and Wilma M. Lash, recorded in Book 269, Page 619 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.03 acre, more or less.

16. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to Walter L. Lash and Wilma M. Lash, recorded in Book 269, Page 619 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 120 feet in width, lying on the Easterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

ALSO that portion of said property lying Northwesterly of said center line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.48 acre, more or less.

17. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being that property described in that certain deed to Kelly Hughes Wyer, recorded in Book 265, Page 200 of Clatsop County Record of Deeds; the said parcel being described as follows:

Beginning at a 2 inch iron pipe which is the

Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.03 acre, more or less.

16. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to Walter L. Lash and Wilma M. Lash, recorded in Book 269, Page 619 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 120 feet in width, lying on the Easterly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

ALSO that portion of said property lying Northwesterly of said center line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.48 acre, more or less.

17. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being that property described in that certain deed to Kelly Hughes Wyer, recorded in Book 265, Page 200 of Clatsop County Record of Deeds; the said parcel being described as follows:

Beginning at a 2 inch iron pipe which is the

Northwest corner of Lower Harbor City (now vacated); thence North 83° 02½' West a distance of 170.30 feet; thence South 18° 26' West a distance of 245.68 feet to an iron pipe which is the true point of beginning of the parcel of property hereby described; thence South 18° 26' West a distance of 216.88 feet to an iron pipe; thence North 89° 49' East a distance of 105.52 feet to an iron pipe; thence North 18° 26' East a distance of 210.33 feet to an iron pipe; thence North 86° 45' West a distance of 103.61 feet to the true point of beginning.

The parcel of land to which this description applies contains 0.49 acre, more or less.

18. A parcel of land lying in Lots 1, 12, 13 and 14, Block 1, SUBDIVISION OF TRACT 3, CHELSEA, Clatsop County, Oregon; the said parcel being that portion of said lots included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.2 acre, more or less.

19. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to Richard R. Davis and Rose Marie Davis, recorded in Book 282, Page 208 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

of 216.88 feet to an iron pipe; thence North 89° 49' East a distance of 105.52 feet to an iron pipe; thence North 18° 26' East a distance of 210.33 feet to an iron pipe; thence North 86° 45' West a distance of 103.61 feet to the true point of beginning.

The parcel of land to which this description applies contains 0.49 acre, more or less.

18. A parcel of land lying in Lots 1, 12, 13 and 14, Block 1, SUBDIVISION OF TRACT 3, CHELSEA, Clatsop County, Oregon; the said parcel being that portion of said lots included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.2 acre, more or less.

19. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to Richard R. Davis and Rose Marie Davis, recorded in Book 282, Page 208 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

ALSO that portion of said property lying Easterly of said center line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 2.0 acres, more or less.

20. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to Delbert E. Shepherd and Martha E. Shepherd, recorded in Book 201, Page 186 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

ALSO that portion of said property lying Easterly of said center line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.9 acre, more or less.

corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

ALSO that portion of said property lying Easterly of said center line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 2.0 acres, more or less.

20. A parcel of land lying in Section 27, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to Delbert E. Shepherd and Martha E. Shepherd, recorded in Book 201, Page 186 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land 115 feet in width, lying on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 660.55 feet to Engineer's center line Station "L3" 210+00.

ALSO that portion of said property lying Easterly of said center line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.9 acre, more or less.

21. A parcel of land lying in Lots 15 and 16, Block 19, SUBDIVISION OF PORTSMOUTH ADDITION TO WARRENTON, Clatsop County, Oregon; the said parcel being that portion of said Lots 15 and 16 lying Easterly of a line parallel with and 150 feet Westerly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 210+00, said station being 2119.57 feet North and 307.30 feet East of the Southeast corner of Section 28, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 2000 feet to Engineer's center line Station "L3" 230+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.11 acre, more or less.

22. A parcel of land lying in the S½ of Tract 7 of RODNEY ACRES, Clatsop County, Oregon; the said parcel being that portion of said S½ of Tract 7 included in a strip of land 350 feet in width, 200 feet on the Easterly side and 150 feet on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 230+00, said station being 355.05 feet North and 634.22 feet West of the Northeast corner of Section 33, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 3146.78 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78 Back equals 268+15.28 Ahead; thence on a 1273.24 foot radius curve left (the long chord of which bears South 9° 48' 15" West) 62.41 feet; thence on a spiral curve left (the long chord of which bears South 2° 51' 15" East) 750 feet to Engineer's center line Station 276+27.69.

EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 288, Page 339 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 1.43 acres, more or less.

21. A parcel of land lying in Lots 15 and 16, Block 19, SUBDIVISION OF PORTSMOUTH ADDITION TO WARRENTON, Clatsop County, Oregon; the said parcel being that portion of said Lots 15 and 16 lying Easterly of a line parallel with and 150 feet Westerly of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 210+00, said station being 2119.57 feet North and 307.30 feet East of the Southeast corner of Section 28, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 2000 feet to Engineer's center line Station "L3" 230+00.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 0.11 acre, more or less.

22. A parcel of land lying in the S½ of Tract 7 of RODNEY ACRES, Clatsop County, Oregon; the said parcel being that portion of said S½ of Tract 7 included in a strip of land 350 feet in width, 200 feet on the Easterly side and 150 feet on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 230+00, said station being 355.05 feet North and 634.22 feet West of the Northeast corner of Section 33, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 3146.78 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78 Back equals 268+15.28 Ahead; thence on a 1273.24 foot radius curve left (the long chord of which bears South 9° 48' 15" West) 62.41 feet; thence on a spiral curve left (the long chord of which bears South 2° 51' 15" East) 750 feet to Engineer's center line Station 276+27.69.

EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 288, Page 339 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 1.43 acres, more or less.

23. A parcel of land lying in Tract 8, RODNEY ACRES, Clatsop County; Oregon; the said parcel being that portion of said Tract 8 included in a strip of land 350 feet in width, 200 feet on the Easterly side and 150 feet on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 230+00, said station being 355.05 feet North and 634.22 feet West of the Northeast corner of Section 33, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 3146.78 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78 Back equals 268+15.28 Ahead; thence on a 1273.24 foot radius curve left (the long chord of which bears South 9° 48' 15" West) 62.41 feet; thence on a spiral curve left (the long chord of which bears South 2° 51' 15" East) 750 feet to Engineer's center line Station 276+27.69.

EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 289, Page 602 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 1.7 acres, more or less.

That for convenience, said parcels herein referred to collectively as "Parcel 3"; and

WHEREAS, Company desires to acquire fee title to Parcel 1; and

WHERAS, the parties have agreed to exchange titles to Parcel 1 and Parcel 2, and to make provision for the acquisition of Parcel 3 by the State, and to provide for payment therefor.

NOW, THEREFORE, in consideration of the promises of each party, and the performance thereof by the other, the parties agree as follows:

1. State shall convey to Company, by warranty deed, all of Parcel 1 above described, in fee simple, free from all liens

being that portion of [illegible] a strip of land 350 feet in width, 200 feet on the Easterly side and 150 feet on the Westerly side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

Beginning at Engineer's center line Station "L3" 230+00, said station being 355.05 feet North and 634.22 feet West of the Northeast corner of Section 33, Township 8 North, Range 10 West, W.M.; thence South 28° 05' West 3146.78 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78 Back equals 268+15.28 Ahead; thence on a 1273.24 foot radius curve left (the long chord of which bears South 9° 48' 15" West) 62.41 feet; thence on a spiral curve left (the long chord of which bears South 2° 51' 15" East) 750 feet to Engineer's center line Station 276+27.69.

EXCEPT therefrom that property described in that deed to the State of Oregon, by and through its State Highway Commission, recorded in Book 289, Page 602 of Clatsop County Record of Deeds.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 1.7 acres, more or less.

That for convenience, said parcels herein referred to collectively as "Parcel 3"; and

WHEREAS, Company desires to acquire fee title to Parcel 1; and

WHEREAS, the parties have agreed to exchange titles to Parcel 1 and Parcel 2, and to make provision for the acquisition of Parcel 3 by the State, and to provide for payment therefor.

NOW, THEREFORE, in consideration of the promises of each party, and the performance thereof by the other, the parties agree as follows:

1. State shall convey to Company, by warranty deed, all of Parcel 1 above described, in fee simple, free from all liens

X

and encumbrances.

2. Company shall convey to State, by warranty deed, all of Parcel 2 above described, in fee simple, free from all liens and encumbrances.

3. Upon signing this Agreement, the State shall set forth to acquire fee title to all of that land described as Parcel 3, free from liens and encumbrances. It is understood and agreed that present title to said Parcel 3 is in numerous separate ownerships and that because thereof the acquisition of title to the total parcel will be delayed to permit separate negotiations by the State with the owners thereof.

4. Upon the purchase of each portion of Parcel 3, the State shall advance the purchase price therefor. Thereupon, the Company shall immediately reimburse to the State, in cash, the amount so advanced in making each purchase. The cost of insuring title in the State for each portion thereof shall also be paid by the Company.

In the event it becomes necessary for the State to bring a condemnation suit to acquire any portion of Parcel 3, the amount of the jury or court verdict given pursuant thereto shall be considered the purchase price to the State for purposes of this agreement.

5. It has been agreed that the values of Parcel 1 and Parcel 2 are not equal in that the value of Parcel 2 is worth over and above the value of Parcel 1 the sum of $45,150.00. Therefore, in reimbursing State for the purchase price of Parcel 3, State shall give Company a credit in said sum, to-wit: $45,150.00.

6. The exchange of deeds for Parcel 1 and Parcel 2 shall be made upon the execution of this agreement. Each party shall thereupon have the immediate right of possession of the land respectively received.

and encumbrances.

3. Upon signing this Agreement, the State shall set forth to acquire fee title to all of that land described as Parcel 3, free from liens and encumbrances. It is understood and agreed that present title to said Parcel 3 is in numerous separate ownerships and that because thereof the acquisition of title to the total parcel will be delayed to permit separate negotiations by the State with the owners thereof.

4. Upon the purchase of each portion of Parcel 3, the State shall advance the purchase price therefor. Thereupon, the Company shall immediately reimburse to the State, in cash, the amount so advanced in making each purchase. The cost of insuring title in the State for each portion thereof shall also be paid by the Company.

In the event it becomes necessary for the State to bring a condemnation suit to acquire any portion of Parcel 3, the amount of the jury or court verdict given pursuant thereto shall be considered the purchase price to the State for purposes of this agreement.

5. It has been agreed that the values of Parcel 1 and Parcel 2 are not equal in that the value of Parcel 2 is worth over and above the value of Parcel 1 the sum of $45,150.00. Therefore, in reimbursing State for the purchase price of Parcel 3, State shall give Company a credit in said sum, to-wit: $45,150.00.

6. The exchange of deeds for Parcel 1 and Parcel 2 shall be made upon the execution of this agreement. Each party shall thereupon have the immediate right of possession of the land respectively received.

7. Each party shall provide title insurance, insuring title in the other as follows: State shall provide insurance insuring title to Parcel 1 in the Company in the sum of the exchange value thereof; Company shall provide insurance insuring title to Parcel 2 in the State in the sum of the exchange value thereof.

8. All agreements herein contained shall extend to and be obligatory on the successors and assigns of the respective parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as below subscribed.

ATTEST:

STATE OF OREGON, by and through its STATE HIGHWAY COMMISSION

_____
Secretary

By _____
Chairman

APPROVED:

_____
Asst. State Highway Engineer

By _____
Commissioner

APPROVED AS TO FORM:

_____
Chief Counsel

By _____
Commissioner

NORTHWEST ALUMINUM COMPANY, INC.

By _____
Title:

By _____
Title:

STATE OF OREGON)
) ss
County of Marion)

On this ____ day of _____, 1970, before me appeared Glenn L. Jackson, Fred W. Hill and Thaddeus B. Bruno, to me personally known, who, each being duly sworn, did say that he, the said Glenn L. Jackson is Chairman of the State Highway Commission of the State of Oregon, and that he, the said Fred W. Hill and he, the said Thaddeus B. Bruno is State Highway Commissioner of the State of Oregon; that the seal affixed to said instrument is the seal of the State Highway Commission, and that the said instrument is signed and sealed in behalf of said State by said Commission

value thereof; Company shall provide insurance insuring title to Parcel 2 in the State in the sum of the exchange value thereof.

8. All agreements herein contained shall extend to and be obligatory on the successors and assigns of the respective parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as below subscribed.

ATTEST:

STATE OF OREGON, by and through its STATE HIGHWAY COMMISSION

_____ By _____
Secretary Chairman

APPROVED:

_____ By _____
Asst. State Highway Engineer Commissioner

APPROVED AS TO FORM:

_____ By _____
Chief Counsel Commissioner

NORTHWEST ALUMINUM COMPANY, INC.

By _____
Title:

By _____
Title:

STATE OF OREGON)
) ss
County of Marion)

On this ____ day of _____, 1970, before me appeared Glenn L. Jackson, Fred W. Hill and Thaddeus B. Bruno, to me personally known, who, each being duly sworn, did say that he, the said Glenn L. Jackson is Chairman of the State Highway Commission of the State of Oregon, and that he, the said Fred W. Hill and he, the said Thaddeus B. Bruno is State Highway Commissioner of the State of Oregon; that the seal affixed to said instrument is the seal of the State Highway Commission, and that the said instrument is signed and sealed in behalf of said State by said Commission, and that the said Chairman and the said Commissioners acknowledge said instrument to be the free act and deed of said State, by said State Highway Commission.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal the day and year last above written.

_____
Notary Public for Oregon
My Commission expires:

State of Oregon, County of _____, ss._____
A.D. 1970.

Personally appeared _____, who, being duly sworn, did say that he is the _____ of Northwest Aluminum Company, Inc., a Delaware corporation, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors; and he acknowledge said instrument to be its voluntary act and deed. Before me:

By _____
Title:

State of Oregon, County of _____, ss._____

A.D. 1970.

Personally appeared _____, who, being duly sworn, did say that he is the _____ of Northwest Aluminum Company, Inc., a Delaware corporation, and that the seal affixed to the foregoing instrument is the corporate seal of said corporation and that said instrument was signed and sealed in behalf of said corporation by authority of its board of directors; and he acknowledge said instrument to be its voluntary act and deed.

Before me:

By _____
Title:

FORM E-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem 97310

December 30, 1969

1-23

To: Bur 2-16-1

Mr. F. B. Klaboe
Asst. State Highway Engineer

BUILDING

SUBJECT: Files 35419 & 35423
Northwest Aluminum Company
Astoria - Camp Rilea Section
Oregon Coast Highway
Clatsop County

Descriptions have now been prepared covering the area which will become excess to the State's needs, as well as the area which Northwest Aluminum Company has already acquired for replacement right-of-way on the subject section. Copies of these two descriptions are attached.

I believe we should have some form of written agreement covering the exchange of property, as well as the proposed handling of the additional property to be acquired by the State, at the expense of Northwest Aluminum. The matter of the credit for additional lands which the State would have needed on the old alignment should also be made a part of the agreement. All of this should be accomplished, I believe, before any land is exchanged.

If there is any part of this matter which you want me to handle, please advise.

D. H. Moehring
Right of Way Engineer

DHM:JP
Attachments
cc Rod J. Henry

Disc. on all w/ Atty
Send to Atty

RECEIVED
DEC 30 1969
OFFICE OF
STATE HIGHWAY ENGINEER

State is acquiring
no consideration

Form E-31

35423
8B-26-20

OREGON STATE HIGHWAY DEPARTMENT

DESCRIPTION OF METES AND BOUNDS

Purchase (x) Lease ( ) Easement ( ) R. R. Encroachment ( ) Sale ( ) ..... (Other)

USE: R/W (x) St. Pile ( ) Material Source ( ) Park ( ) Maint. ( ) ..... (Other)

Description prepared by ADP, 12-1-69 (Date); (State Purpose .....)

Owner Northwest Aluminum Co.

So. Unit Astoria-Camp Rilea Section, Oregon Coast Highway.

File 35423

069
104

A parcel of land lying in Sections 27, 28 and 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to the Northwest Aluminum Company, recorded in Book 305, Page 81 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land variable in width, lying on each side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

DEC 23 1969

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 5807.33 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78.

The widths in feet of the strip of land above referred to are as follows:

Station	to Station	Width on Easterly Side of Center Line	Width on Westerly Side of Center Line
"L3"187+50	"L3"203+39.45	120	115
"L3"203+39.45	"L3"206+00	120 taper to 150	115
"L3"206+00	"L3"211+00	150	115
"L3"211+00	"L3"213+00	150	115 taper to 240

Purchase (x) Lease ( ) Easement ( ) R. R. Encroachment ( ) Sale ( ) ..... (Other)

USE: R/W (x) St. Pile ( ) Material Source ( ) Park ( ) Maint. ( ) ..... (Other)

Description prepared by ADP, 12-1-69 (Date); (State Purpose .....)

Owner Northwest Aluminum Co.

So. Unit Astoria-Camp Rilea Section, Oregon Coast Highway.

File 35423

069
104

A parcel of land lying in Sections 27, 28 and 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in that deed to the Northwest Aluminum Company, recorded in Book 305, Page 81 of Clatsop County Record of Deeds; the said parcel being that portion of said property included in a strip of land variable in width, lying on each side of the center line of the Oregon Coast Highway as said highway has been relocated, which center line is described as follows:

DEC 23 1969

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 5807.33 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78.

The widths in feet of the strip of land above referred to are as follows:

Station	to Station	Width on Easterly Side of Center Line	Width on Westerly Side of Center Line
"L3"187+50	"L3"203+39.45	120	115
"L3"203+39.45	"L3"206+00	120 taper to 150	115
"L3"206+00	"L3"211+00	150	115
"L3"211+00	"L3"213+00	150	115 taper to 240
"L3"213+00	"L3"219+00	150 taper to 120	240
"L3"219+00	"L3"221+20	120 taper to 200	240
"L3"221+20	"L3"222+50	200	240 taper to 150
"L3"222+50	"L3"260+00	200	150

OVER

ACCESS CONTROL: Complete to Hwy. ( ) Complete to Parcel ( ) Allowed to Frontage Road Only ( )

Limited to Location (x) None ( )

VESTING DEEDS ATTACHED ☒ PRIOR FILE _____

DEEDS NEEDED _____

Bearings are based upon the Oregon Co-ordinate System, North Zone..

The parcel of land to which this description applies contains 25.8 acres, more or less.

NOTE

M. R. MITCHELL

RECEIVED
DEC 23 1969
RIGHT OF WAY DEPT.

being transferred to P.W. Aluminum
& Leather Works

35419 ✓ 35430
35421 35431
35422 39284
35429

Form E-31

OREGON STATE HIGHWAY DEPARTMENT

DESCRIPTION OF METES AND BOUNDS

8B-26-20

Purchase ( ) Lease ( ) Easement ( ) R. R. Encroachment ( ) Sale (X) ..... (Other)

USE: R/W ( ) St. Pile ( ) Material Source ( ) Park ( ) Maint. ( ) ..... (Other)

Description prepared by ADP, 12-4-69 (Date); (State Purpose .....)

Owner State of Oregon, by and through its State Highway Commission

South Unit, Astoria-Camp Rilea Section, Oregon Coast Highway.

File 35419

069
103

A parcel of land lying in Section 27; in Section 28 and in Section 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 272, Page 517; Book 288, Page 339; Book 288, Page 410; Book 289, Page 455; Book 289, Page 602 and in Book 292, Page 687, all of Clatsop County Record of Deeds and a portion of that property conveyed by that certain Final Judgment dated June 19, 1967 and filed in the Circuit Court of the State of Oregon, for the County of Clatsop, wherein the State of Oregon, by and through its State Highway Commission was the plaintiff and Hollum L. Hunley et al were the defendants and bearing Case No. 26287; the said parcel being that portion of said property lying Northerly of the South line of the Solomon Smith D.L.C. No. 40, Township 8 North, Range 10 West, W.M.; Southerly of S. E. 13th Street in the City of Warrenton and Easterly of the following described line:

Beginning at a point opposite and 145 feet Southeasterly of Engineer's Station "L3" 181+00 on the center line of the relocated Oregon Coast Highway; thence Southwesterly in a straight line to a point opposite and 180 feet Southeasterly of Engineer's Station "L3" 186+00 on said center line; thence Southwesterly in a straight line to a point opposite and 120 feet Southeasterly of Engineer's Station "L3" 187+50 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 203+39.45; thence Southerly in a straight line to a point opposite and 150 feet Easterly of Engineer's Station "L3" 206+00 on said center line; thence Southerly parallel

DEC 22 1969

(Date)

Owner State of Oregon, by and through its State Highway Commission

South Unit, Astoria-Camp Rilea Section, Oregon Coast Highway.

File 35419 069 103

A parcel of land lying in Section 27; in Section 28 and in Section 33, Township 8 North, Range 10 West, W.M., Clatsop County, Oregon and being a portion of that property described in those deeds to the State of Oregon, by and through its State Highway Commission, recorded in Book 272, Page 517; Book 288, Page 339; Book 288, Page 410; Book 289, Page 455; Book 289, Page 602 and in Book 292, Page 687, all of Clatsop County Record of Deeds and a portion of that property conveyed by that certain Final Judgment dated June 19, 1967 and filed in the Circuit Court of the State of Oregon, for the County of Clatsop, wherein the State of Oregon, by and through its State Highway Commission was the plaintiff and Hollum L. Hunley et al were the defendants and bearing Case No. 26287; the said parcel being that portion of said property lying Northerly of the South line of the Solomon Smith D.L.C. No. 40, Township 8 North, Range 10 West, W.M.; Southerly of S. E. 13th Street in the City of Warrenton and Easterly of the following described line:

Beginning at a point opposite and 145 feet Southeasterly of Engineer's Station "L3" 181+00 on the center line of the relocated Oregon Coast Highway; thence Southwesterly in a straight line to a point opposite and 180 feet Southeasterly of Engineer's Station "L3" 186+00 on said center line; thence Southwesterly in a straight line to a point opposite and 120 feet Southeasterly of Engineer's Station "L3" 187+50 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 203+39.45; thence Southerly in a straight line to a point opposite and 150 feet Easterly of Engineer's Station "L3" 206+00 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 213+00; thence Southerly in a straight line to a point opposite and 120 feet Easterly of Engineer's Station "L3" 219+00 on said center line; thenoe Southerly in a

DEC 22 1969

OVER

ACCESS CONTROL: Complete to Hwy. (X) Complete to Parcel ( ) Allowed to Frontage Road Only ( )

Limited to Location (x) None ( )

VESTING DEEDS ATTACHED ☐ PRIOR FILE _____

DEEDS NEEDED _____

straight line to a point opposite and 200 feet Easterly of Engineer's Station "L3" 221+20 on said center line; thence Southerly parallel with said center line to a point opposite Engineer's Station "L3" 260+00.

The center line referred to herein is described as follows:

Beginning at Engineer's center line Station "L3" 175+00.92, said station being 992.43 feet South and 1480.59 feet West of the Northeast corner of Block 63, WARRENTON PARK, Clatsop County, Oregon; thence South 52° 52' West 822.34 feet; thence on a spiral curve left (the long chord of which bears South 51° 07' West) 600 feet; thence on a 3274.05 foot radius curve left (the long chord of which bears South 40° 28' 30" West) 816.19 feet; thence on a spiral curve left (the long chord of which bears South 29° 50' West) 600 feet; thence South 28° 05' West 5807.33 feet; thence on a spiral curve left (the long chord of which bears South 22° 27' 45" West) 750 feet to Engineer's center line Station "L3" 268+96.78.

ALSO that portion of the vacated streets in the HERRING - ELLIOTT ADDITION TO WARRENTON inuring to said property lying Easterly of the heretofore described line.

Bearings are based upon the Oregon Co-ordinate System, North Zone.

The parcel of land to which this description applies contains 16.1 acres, more or less.

File No.		Area	Book and Page
35419	Parcel 1	0.67	272 517
35419	Parcel 2	9.81 (10.3)	272 517
35419	Parcel 3	3.10	272 517
35419	Parcel 4	0.05	272 517
35421		0.22	289 455
35422		0.07	F.J. Case No. 26287
35429		0.65	288 339
35430		0.91	289 602
35431		0.30	288 410
39284		0.32	292 687
Total		16.1	

. 1979 S. Unit, Astoria - 8949
. Camp Rilea Sec. 101.
. AMAX Co. #3

RECEIVED
DEC 23 1969

FOR FILING

8949

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
December 22, 1969

SUBJECT:

To: Mr. F. B. Klaboe
Assistant State Highway Engineer

B U I L D I N G

As requested in your letter of December 19, an up-to-date billing was made to the Northwest Aluminum Company December 19 in the amount of $5,475.86. This billing includes all costs through November 30, 1969.

V. E. Skoog
Controller

NOTED
F.B. KLABOE

VES:PH:bg

cc: Paul Hatcher

RECEIVED
DEC 22 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 19 1969
FOR FILING

OREGON STATE HIGHWAY DEPARTMENT
INTER-DEPARTMENT CORRESPONDENCE
Salem 97310
December 17, 1969

SUBJECT:

8949
To MEMO

A meeting was held this date in Mr. Klaboe's office. The following people were in attendance:

F. B. Klaboe, Assistant State Highway Engineer
D. J. Barbee, Design Engineer
D. H. Moehring, Right of Way Engineer
Rod J. Henry, District Right of Way Supervisor
Richard E. Peck, Executive Vice President
Northwest Aluminum Company
Cliff Alterman, Attorney
Commonwealth Building, Portland
Warren Lessig
Pioneer National Title Company, Astoria
Hal Moy
S P & S Railroad Company
Harry Hudson
S P & S Railroad Company

The purpose of the meeting was to discuss an exchange of lands on the Astoria - Camp Rilea Section of the Oregon Coast Highway in Clatsop County resulting from requests from the Northwest Aluminum Company. The lands to be exchanged for the convenience of Northwest Aluminum are to be based on the following assumptions:

The right-of-way presently owned by the Highway Division is valued at $55,000. In addition to this amount, an additional $45,000 must be expended to complete the right-of-way needed by the Division. Northwest Aluminum Company desires a portion of this right-of-way and has actually acquired $70,000 worth of replacement land to date. It is estimated that to

NOTICE TO F.B. KLABOE

complete the necessary rights of way on the Aluminum Company proposed right-of-way would mean spending an additional $99,000.

With the State giving the Aluminum Company a credit of $45,000 [the additional cost of acquiring the State's needed right-of-way], the State will acquire the remaining lands needed on the Aluminum Company proposal [$99,000] and will credit the Aluminum Company for $45,000. The $99,000 figure mentioned above is an estimate, and the Aluminum Company is willing to pay the State the actual cost involved.

Mr. Barbee is going to prepare the descriptions of the Aluminum Company right-of-way needed and will send them to Right of Way for acquisition. He will also prepare a description of the parcels the State is to convey to the Aluminum Company of the State-acquired but unneeded right-of-way, as well as descriptions of the parcels the State will receive from the Aluminum Company. The deeds, when they are prepared, are to be sent to Attorney Cliff Alterman, whose address is 1107 Commonwealth Building, Portland.

ORIGINAL SIGNED
D. H. MOEHRING

D. H. Moehring
Right of Way Engineer

DHM:JP
cc F. B. Klaboe
D. J. Barbee
Rod J. Henry
E. F. Saling

RECEIVED
DEC 18 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 29 1969
FOR FILING

8949

August 28, 1969

Mr. Richard E. Peck
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway
New York, New York 10004

Dear Mr. Peck:

I am returning herewith a signed copy of the agreement which raises the estimate for the relocation of US101 in the vicinity of the proposed Northwest Aluminum Company plant from $81,000 to $83,500.

Please advise if there is any further information that you need in order to expedite your work and, if so, I will do all I can to furnish it.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klaboe
Assistant State Highway Engineer

FBK:erb

Attachment

cc: Forrest Cooper
R. L. Porter
V. E. Skoog (w/attach.)
D. J. Barbee
D. H. Moehring
R. D. Asburry
Loren Weber

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

CABLE ADDRESS
"THEQUITY-NEW YORK"

August 18, 1969

Mr. Forrest Cooper
State Highway Engineer
State Highway Building
Salem, Oregon 97310

Attention: Mr. Fred B. Klaboe,
Assistant State Highway Engineer

Gentlemen:

In reply to your letter of August 13, 1969 addressed to Parsons-Jurden Corporation, this letter is to confirm our telephone conversation on August 12 regarding the possible additional field and office costs for the final ("green") alignment of your proposed relocation of U.S. Highway 101. You have estimated this possible additional field and office costs as $5,000 in addition to the costs agreed to in our letter agreement dated December 5, 1968.

It is now agreed that in connection with the relocation of U.S. Highway 101 the costs of such relocation will not exceed $83,500.

If the foregoing is acceptable, please sign and return the copy enclosed.

Very truly yours,

Richard E. Peck

Richard E. Peck
Executive Vice President

Agreed to and Accepted

this 28th day of August, 1969:

Fred Klaboe

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

CABLE ADDRESS
"THEQUITY-NEW YORK"

August 18, 1969

Mr. Fred B. Klaboe
Assistant State Highway Engineer
State Highway Building
Salem, Oregon 97310

Dear Fred:

Enclosed is a letter agreement between Northwest Aluminum Company, Inc. and the Oregon State Highway Department which reflects our telephone agreement that each of us absorb one-half of the additional field and office costs for the latest "green" alighment of U. S. Highway 101. In your letter of August 13 you transmitted a revised drawing No. 3803 showing the change in the southerly tangent to South 28° 05' West. You also sent a section of your right-of-way map where the proposed relocated highway would cross the railroad track.

Unless you have some objection, we are going to release this information and a copy of that right-of-way map to Hal Moy of the S.P.& S. Railroad and to our landsman, Mr. Richard Davis, so that work can begin on the location and acquisition of the property easement for the S.P.& S. spur track to our plant site.

Thank you very much for all the help you and your staff have given to us in resolving this matter.

Sincerely,

Richard E. Peck

Richard E. Peck
Executive Vice President

REP.rss
cc Robert H. Raring
Richard N. Davis
H. F. Moy

RECEIVED
AUG 21 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 13 1969
FOR FILING

8949

August 13, 1969

Parsons-Jurdan Corporation
25 Broadway
New York, New York 10004

Attention Mr. Robert H. Baring
Project Manager

Gentlemen:

Re: P-J Job No. 4180-1, Clatsop Project
Relocation of US101

This is to acknowledge your letter of July 14 in which you requested certain information in regard to the location of the staked alignment for the relocated Oregon Coast Highway adjacent to your Clatsop Project, P-J Job No. 4180-1.

Please note that your Drawing 000-3002 Issue 5 does not show the relocation of the Oregon Coast Highway but approximates one of several suggested alignments that have been discussed in the past. As per your request, we have shown on the attached print of Drawing 000-3003 the alignment which has been staked on the ground by our Resident Engineer, Loren Huber, and which Mr. Hare has indicated should be further west. This line is shown in red.

We have also shown an additional projected alignment which is shown in green. It is further west and will approximate the alignment which was discussed during our recent meeting at the Highway Division office here in Salem. This alignment utilizes your coordinates for the relocated P.I. near the north end, and then proceeds southerly to tie into our presently staked curve just south of the railroad crossing. This changes the bearing of this southerly tangent from South 21° 31' 30" West to South 28° 06' East. We are also attaching a section of our right-of-way map at the south end of this section where we cross the railroad track.

Additional field and office costs for this "green" alignment have been estimated as $5,000 above the costs quoted in our agreement dated December 5, 1968. We are prepared to absorb one-half

of the additional cost if you will accept the other half. In other words, if the total cost is under the $31,000 originally estimated, half of the cost of this revision will be included in your billing. If the original cost reaches $41,000, the total cost to you will be $35,500.

If this supplement is agreeable, please sign a copy of this letter and return to this office.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Kimbro
Assistant State Highway Engineer

Agreed to and Accepted

this _____ day of _____, 1959:

PARSONS-JORDAN CORPORATION

By _____

cc: Forrest Cooper
R. L. Porter
V. E. Skoog
D. J. Barbee
D. H. Moehring
R. D. Asburry
Loren Leber

GCW:jp/bdr FBK:srb

Parsons-Jurden Corporation

A SUBSIDIARY OF THE RALPH M. PARSONS COMPANY

26 BROADWAY, NEW YORK, N. Y. 10004

July 14, 1969

Routing

1 Barbee ✓ | Trout
Hall | 2 Wills
A. Olson | Hackleman
Sample | Scott
Terpin | R. Olson
Swenson | Carstensen

RECEIVED
JUL 15 1969
DESIGN DIVISION

State of Oregon
State Highway Department
Salem, Oregon 97310

ATTENTION of Mr. D. J. Barbee
Design Engineer

SUBJECT P-J Job No. 4180-1
Clatsop Project
Relocation of State Highway 101

Gentlemen:

Further to the meeting of our Messrs. Hare and Webb with your officials in Salem on July 1, 1969, we enclose herewith two (2) prints of our Plot Plan Dwg. 000-3803 Issue S on which we have plotted the proposed relocation of State Highway 101.

Please note that we have shown coordinates for two points of intersections as also bearings for the tangents. Outlines of property owned by Northwest Aluminum Company, Inc. as shown.

Would you please examine this plot for conformance with your survey and plots and advise us - by return of one marked up print - of any necessary corrections. If our drawing is in agreement with your notes, we would, of course, be favored if you would advise in that respect.

Additionally, we would be obliged if we could have a print of the southerly part of the relocation survey in the Fort Clatsop area. Such information will be of assistance in our dealings with SP&S Railway as regards routing of their railroad spur. We anticipate that the switch point for the spur will be eastward of the R-O-W of proposed relocated State Highway 101, thereby avoiding a crossing of the spur with the State Highway.

Very truly yours,

PARSONS-JURDEN CORPORATION

Robert H. Raring

Robert H. Raring
Project Manager

RHR:fd
Encls. - as above
CC: Mr. R. E. Peck - w/encl.
Mr. J. M. Morris - w/encl.
Mr. H. J. Hare - w/encl.
Kell & Alterman, Portland - w/encl.

REFERRED TO
Wills
Design Engr.

Engineers · Constructors

D.L.C. NO. 40
D.L.C. NO. 39

SOLOMON SMITH
GEO. DAVIDSON

39284 ② 10
39284 +50
+50
+50
39284 70
S 39°25' W
S 31°31'30" W 70' 260
259'
39284 ③ FW 28638 2.65 Ac± 292-687
Clatsop County 162-144
80'
250'
39204 ① 0.76 AGE
39254
Clatsop Co. 162-144
N 918,000
E 1,131,004
33
F. HYer

Clatsop County
162.144

59+88.00 P.S.

4°30' C.L.
Ts. 40'00"
T. 844.02
750 Sps
5°16'52.30"
D 0°0.6

39204

267+38.00 P.S.C.

269 P.C.S.

650

265

70

90

100

110

270

10480

W. & R. Johnson
216-534
184-100
183-60

H. & E. Corbon
145.71

G. Thumbo

65

55

80

T. 8 N., R. 1(

8B-26

8B-26-20

276+27.69 P.T.

Deed RW 28422
291-491

D. & B. Lorson
RW 28936
294-185
246-16
152-532

H.E. Burtrow
179-705

C.V. Mason
188-545
RW 28071
289-136

275

35440 1.0 Ac.

35442

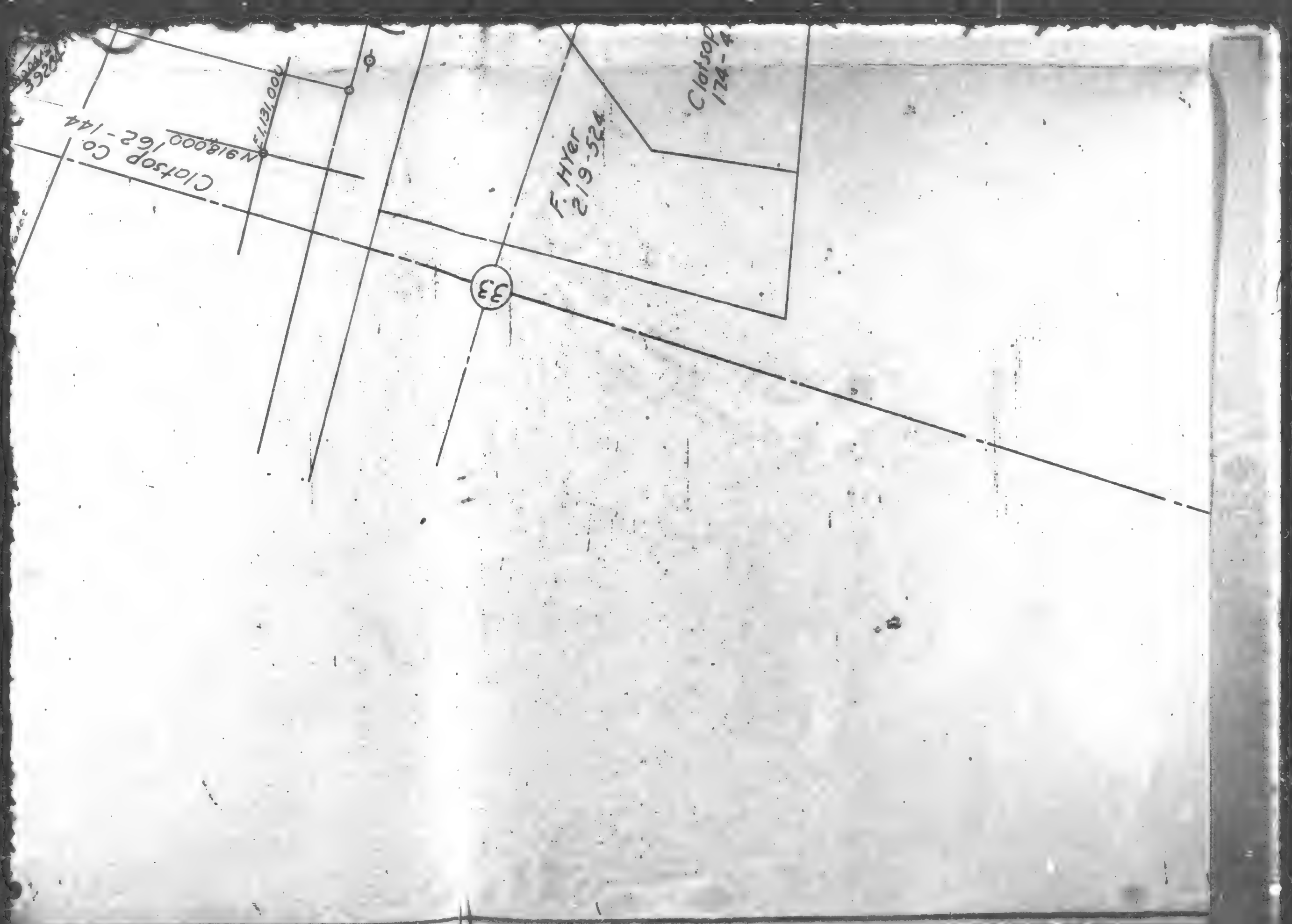
35443

HIGHWAY

35441

35444

S 89°30' E


Clatsop Co.
162-144
N 18000
E 1131.00
33
F. HYer
219-524
Clatsop
174-4

650

265'

268'

70'

90'

90'-30'

RW 2928
E 92-38

40480
1.954 Ac. R/W

35433
1.0 Ac.

Dead RW 28037
269-102
1.4 Ac. R/W

100

110

110

W. & P. Johnson
216-554
184-180
183-601

150

0.20 Ac.

35434
1.854 Ac.
RW 29063
269-609

0.17 Ac.
RW 28375
E 95-52

35436
0.72 Ac.

270

J. & E. Carlson
145-71

C&O 100.00 P.I.
N 917,528.13
E 1,130,941.65

G. Trueba
169-797
267-549

S10°-20'E

0°-49'E

35419
0.04 Ac.

Dead RW 25310
272-517

35435
0.15 Ac.

35438

0.45 Ac.

1.31 Ac. R/F

2.3 Ac. R/F

100

100

J. & D. Van Domelan
273-402

L. & E. Mueller
250-566

268+32.82 P.I.
N 917,489.70
E 1,131,045.50

Esop Co.
-441

S. Lagus
133-236

269+00.94 P.I.
N 917,463.24
E 1,131,089.45

269+47.33 P.I.
N 917,446.39
E 1,131,051.91

276+27.69 P.T.

D. & B. Larson
RW 28936
294-185
246-16
152-532

Deed RW 28422
291-491

H.E. Burtrow
179-705

C.V. Mason
188-545
RW 28071
289-136

35440 1.0 Ac.
35439
35442
35443
35441
35444

S 7°00'30" E

A.F. Rounds
121-547
131-244
133-349
133-532

R. Hendrickson
269-611

B22+09.61 P.C.

B24+43.34 P.I.
N916,432.39
E1,131,070.20

B
2°CR
Δ=6°00'30"
T=153.69'

B25+96.69 P.T.

D. & G. Corper
271-463

SCALING RULES

N

E 1,133,000

N 924,000

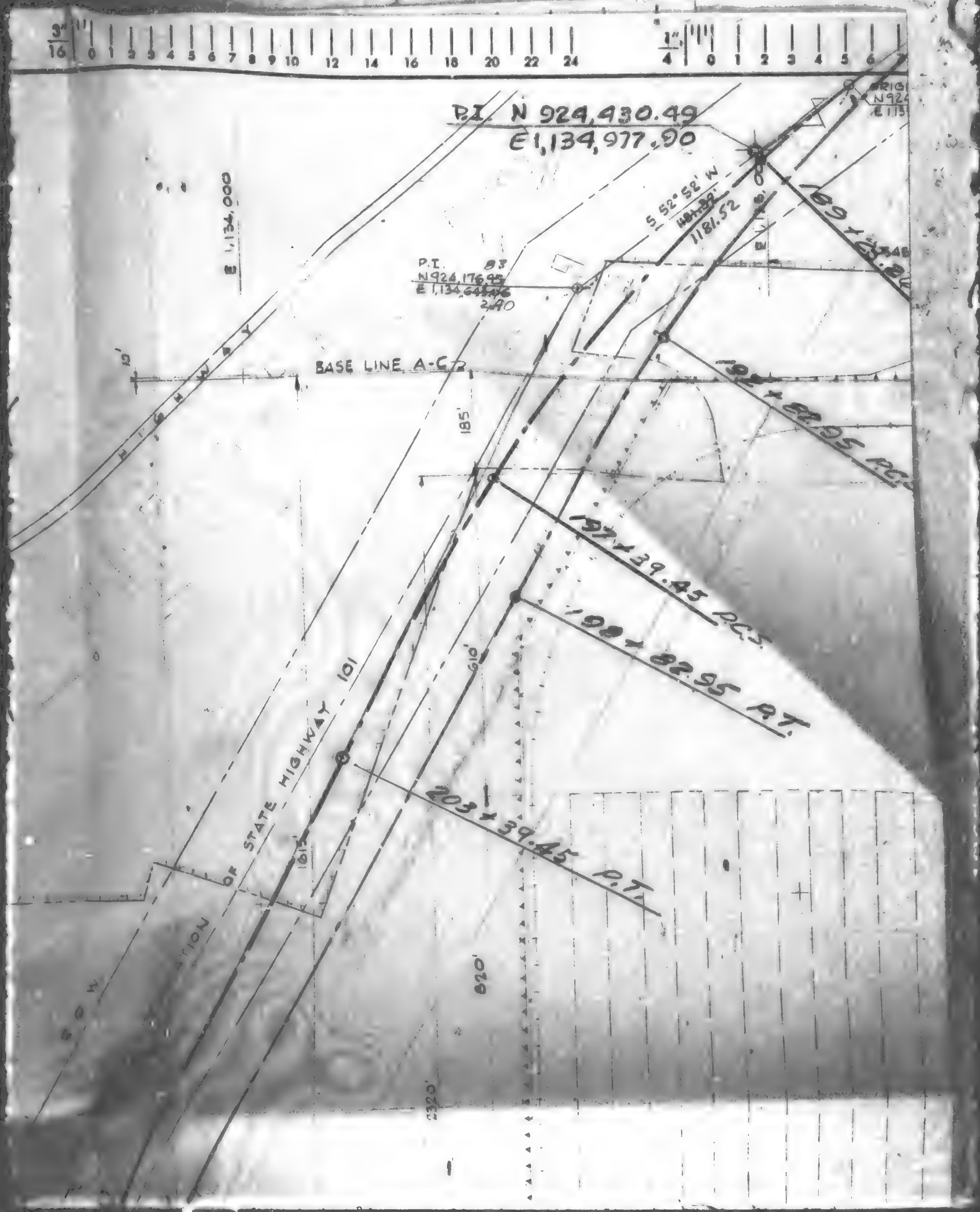
N 923,000

PROPERTY LINE

P.O.W.

PROPOSED RELOCATIO

S 31°31'30" W


P.I. N 924,430.49
E 1,134,977.90
E 1,134,000
S 52° 52' W
1181.52
P.I. 93
N924,176.95
E 1,134,645.46
2.90
BASE LINE A-C
185'
610'
610'
320'
101
OF STATE HIGHWAY
R O W
SECTION
197+39.45 P.C.S.
199+82.95 P.T.
203+39.45 P.T.

BASE LINE A-C

BASE LINE B-H

E 136,000

980'

905'

PROPERTY LINE

753'

EXISTING PACIFIC POWER & LIGHT SUBSTATION

227'

56.00

A

B

COKE UNLOADING FACILITY

86'

PASTE PLANT

360'

265'

50'

CARBON BAKE FURNACE

300'

ANODE PRESS

258'-8"

116'-0

SS-CB-1

COOLING POND

170'

120'

RODDING BUILDING

CHANGE HOUSE

CARPENTER SHOP

264'

455'

526'

BAGHOUSE

BAGHOUSE

168'

FUEL OIL STORAGE

CHANGE HOUSE

CALCINATION BLDG

918'

LAB

KILN

E 1,137,000

BAUXITE CONVEYOR

BASE LINE C-J

E 1,139,000

905'

146.56'

150'

℄ 24'

50

40

30

20

10

PROPOSED PACIFIC POWER & LIGHT CO. SUBSTATION

120'

55'

100

175'

145'

125'

80'

STORAGE AREA

WAREHOUSE

80'

KE UNLOADING CILITY

GREASE & OIL STORAGE

60'

113'

322'

55'

MAINTENANCE SHOP

102

300'

PARKING

GATE HOUSE

80'

364'

362'

CHANGE RM SHOWER

210'

516

102.45

100.55

51.50

17.50

10

BAUXITE STORAGE

240'

230'

155'

STORAGE TANK

STEAM PLANT

CENTRAL CONTROL RM

BAUXITE GRINDING & CALCINATING

63'

315'

GRINDING & DIGESTION AREA

DUST COLLECTOR

UNIT

SEWAGE TREATMENT PLANT

PROPERTY LINE

OREGON STATE HIGHWAY 101 & 126

HIGHWAY 105

1) BASE L
ARE LO
COORDIN
SYSTEM

2) ALL BUIL
DIMENSI

3) O.T.O. RE
OUTSIDE

4) FOR PRO
CAPACITY

E 1,130,000

150'

N 924,000

PROPOSED PACIFIC POWER & LIGHT CO. SUBSTATION

PARKING

ATE OUSE

PROPERTY LINE

OREGON STATE HIGHWAY 101

101 ALTERNATE

SEWAGE TREATMENT PLANT

50
40
30
20
10
10
20
30
30
20
10
10
20

NOTES

1) BASE LINE A-G AND BASE LINE D-F ARE LOCATED WITH RESPECT TO GRID COORDINATES, OREGON COORDINATE SYSTEM, NORTH ZONE.
2) ALL BUILDING DIMENSIONS ARE ℄ COLUMN DIMENSIONS, UNLESS OTHERWISE NOTED
3) O.T.O. REPRESENTS BUILDING DIMENSIONS OUTSIDE TO OUTSIDE
4) FOR PROPERTY LINES ON MILLER SUBSTATION & CAPACITOR YARD SEE DWG. NO 000-3209

N 923,000

PROPERTY LINE

C

N 922,000

D

N 921,000

E

PROPERTY

P.O.W.

PROPOSED RELOCATED

S 31° 31' 30" W

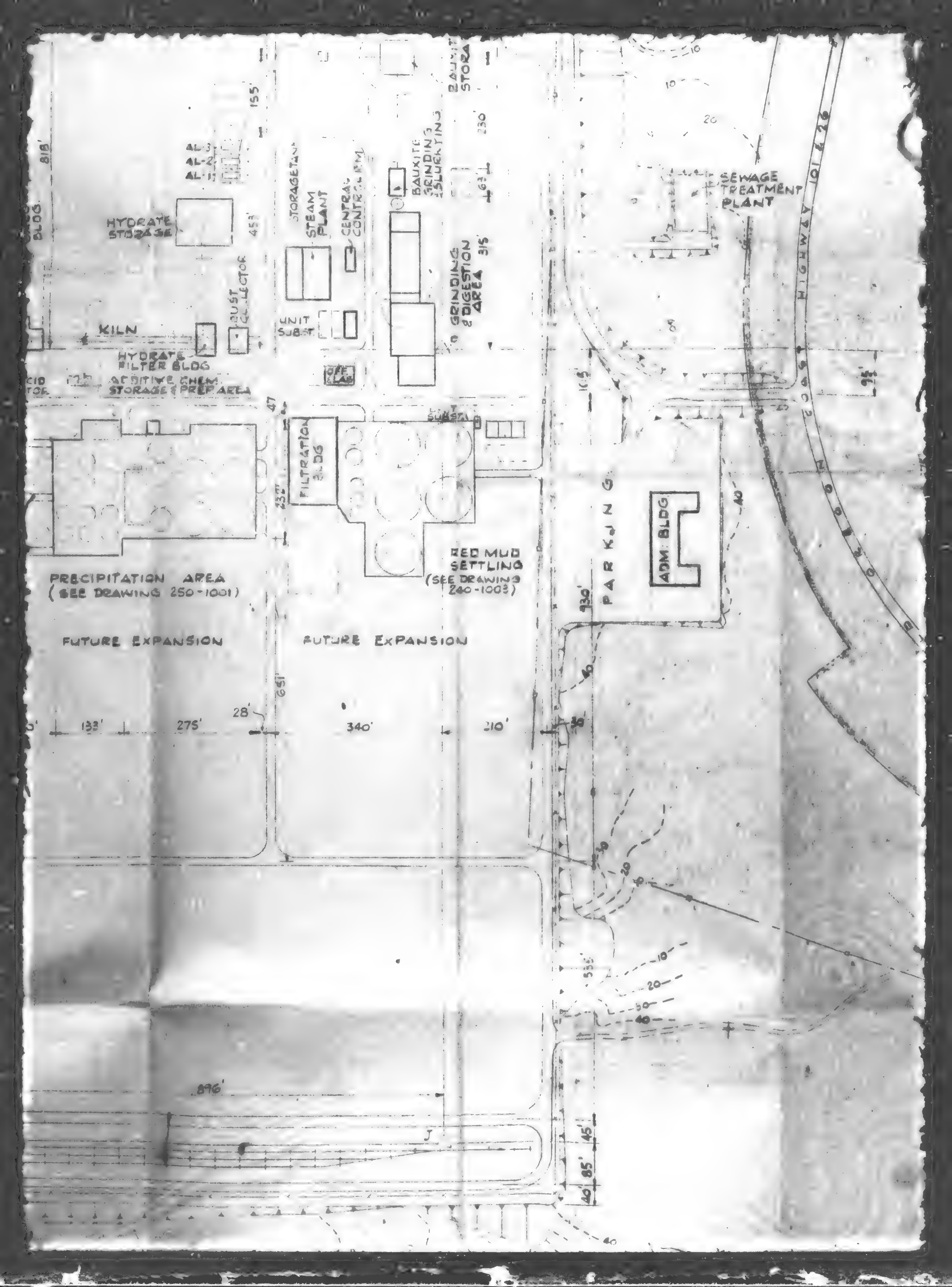
S 28° 05' W

P.O.W.

S 29° 25' W

PROPOSED RELOC
S31°51'30"W
2320'
BASE LINE D-F
25'
POT ROOMS
867'
1615'
725'
BASE LINE G-I

POT ROOM 2B
POT ROOM 2A
POT ROOM 1B
POT ROOM 1A
BAGHOUSE
BAGHOUSE
BAGHOUSE
SS-PL-2W
SS-PL-2S
SS-PL-1N
SS-PL-1S
OFFICE
CHANGE HOUSE
LAB
FUEL OIL STORAGE
170 ALUMINA STORAGE
CALCINATION BLDG
KILN
HYDRATE STORAGE
HYDRATE SILO
ACID STOR.
DRIVEWAY
COOLING TOWER
COVERED
CAST HOUSE
PRECIPITATION AREA (SEE DRAWING
FUTURE EXPANSION
RECTIFIERS SUBSTATION
UTILITY SUBSTATION
ELEC. CONTROL HOUSE
METAL STORAGE & LOADING AREA
BONNEVILLE POWER ADMINISTRATION MILLER [illegible] STA.
455'
440'
210'
150'
200'
540'
535'
385'
165'
75'
90'
133'
820'
630'
232'
332'
526'
818'
39'
82'
78'
45'
23'
29'
14'
25'
9'
11'
7'
35'
40'
60
70
65'
G
H


HYDRATE STORAGE
AL-3
AL-2
AL-1
STEAM PLANT
CENTRAL CONTROL ROOM
BAUXITE GRINDING & SLURRYING
GRINDING & DIGESTION AREA
KILN
DUST COLLECTOR
HYDRATE FILTER BLDG
ADDITIVE CHEM. STORAGE & PREP AREA
FILTRATION BLDG
SUBSTA.
OFF. LAB
RED MUD SETTLING
(SEE DRAWING 240-1003)
PRECIPITATION AREA
(SEE DRAWING 250-1001)
FUTURE EXPANSION
FUTURE EXPANSION
SEWAGE TREATMENT PLANT
ADM. BLDG
PARKING
101 & 126 FREEWAY
818'
455'
315'
155'
230'
133'
275'
340'
210'
28'
651'
330'
896'
85'
45'

4) FOR PROPERTY LINES ON MILLER SUBSTATION CAPACITOR YARD SEE DWG. Nº 000-3809

SEWAGE TREATMENT PLANT

HIGHWAY 101

ADM. BLDG

PARKING

95'

375'

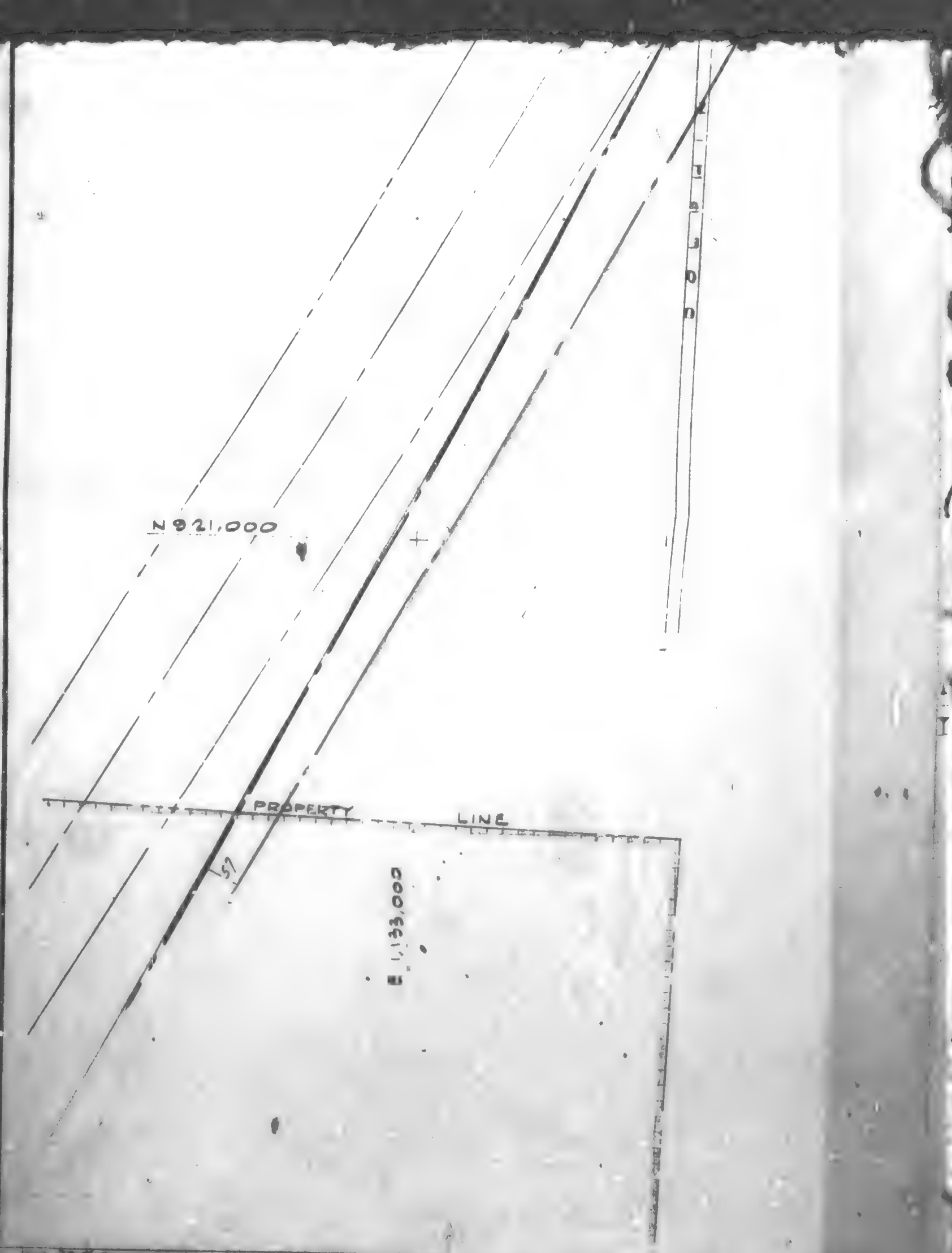
N 922,000

N. 921,000

C

D

E



	DWG NO.	DESCRIPTION
REFERENCES	200-3801	PROPERTY PLOT - MILLER SUBSTATION
	201-1001	ALUMINA PLANT - SITE PLAN
	310-1001	POT LINES GENERAL ARRANGEMENT
	450-1001	CAST HOUSE, GENERAL ARRANGEMENT
	601-1001	CARBON PLANT GENERAL ARRANGEMENT

REFERENCES	DWG NO.	DESCRIPTION
	620-1001	ANODE PRESSING, GENERAL ARRA
	630-1001	CARBON BAKE FURNACES G.A
	640-1001	RODDING ROOM GENERAL ARRANG
	660-1001	COKE & PITCH RECEIVING, G.A.

GRAPHIC CONTROLS CORP., BROOKLYN, N. Y. 11217 ASTROFILM 675.3 15233

1615'

725'

BASE LINE G-I

E 1,184,000

E 1,183,000

NO.	BY	CK.	APP.	APP.	CLIENT	DATE	DESCRIPTION
A							
B							
C							
D							

REVISIONS

NO.	BY	CK.	APP.
1			
2			
3			
4			

2

3

RECTIFIERS SUBSTATION

ELEC. CONTROL HOUSE

UTILITY SUBSTATION

CAST

METAL STORAGE & LOADING AREA

BONNEVILLE POWER ADMINISTRATION MILLER SUBSTATION

BONNEVILLE POWER ADMINISTRATION CAPACITOR YARD

DRISCOLL

CLATSOP

PRELIMINARY

(NOT FOR CONSTRUCTION)

NO.	DATE	
S	7/10/69	FOR IN
R	6/25/69	FOR IN
P	6/6/69	FOR IN
N	1/31/69	FOR IN
M	10/22/68	FOR IN
L	8/8/68	FOR IN
K	8/2/68	FOR IN
J	6/18/68	FOR IN
H	5/29/68	FOR IN
G	1/25/68	FOR
F	1/8/68	FOR P
E	12/20/67	

NO.	DATE	DESCRIPTION

DRAWN BY	
CHECKED BY	
APP. DEPT. HD	
APP. PROJ. MGR.	
APP. CLIENT	

EXPANSION

FUTURE EXPANSION

275'

28'

340'

210'

896'

J

E 1,136,000

7/10/69	FOR INFORMATION ONLY		R.H.R.
6/25/69	FOR INFORMATION ONLY		R.H.R.
6/6/69	FOR INFORMATION ONLY		R.H.R.
1/31/69	FOR INFORMATION ONLY		R.H.R.
10/28/68	FOR INFORMATION ONLY		R.H.R.
8/8/68	FOR INFORMATION ONLY		R.H.R.
8/1/68	FOR INFORMATION ONLY		R.H.R.
6/[illegible]/68	FOR INFORMATION ONLY		R.H.R.
5/23/68	FOR INFORMATION ONLY		R.H.R.
1/2[illegible]/68	FOR INFORMATION ONLY		R.H.R.
1/[illegible]/68	FOR INFORMATION ONLY		R.H.R.
[illegible]	FOR INFORMATION ONLY		R.H.R.
NO.	PRELIMINARY ISSUE	DEPT. HD. APPROVED	PROJ. MGR.

ITEM	NO. REQ.	DESCRIPTION	MAT'L	LOCA

BILL OF MATERIAL

NORTHWEST ALUMINUM CO
CLATSOP PROJE

CLATSOP COUNTY

[illegible] JORDEN CORPORATION

[illegible]NEERS & CONSTRUCTORS

2[illegible] BROADWAY NEW YORK, N.Y.

PLANT AREA

PLOT PLAN

SCALE: 1" = 2[illegible]

000

JUL 10 1969

ITEM	No. REQ'D.	DESCRIPTION	MAT'L	LOCATION	MARK No.	DETAILED ON DWG.

BILL OF MATERIAL

NORTHWEST ALUMINUM COMPANY, INC.
CLATSOP PROJECT

CLATSOP COUNTY — OREGON

SCALE: 1"=200' — JOB NO. 4[illegible]

PLANT AREA
PLOT PLAN

000-3803

S

RECEIVED
JUL 31 1969
FOR FILING

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212 8949

CABLE ADDRESS
"THEQUITY-NEW YORK"

July 29, 1969

Mr. Fred Klaboe
Assistant Chief Engineer
Oregon State Highway Department
Salem, Oregon 97310

Dear Fred:

Enclosed is our check of $1,268.66 in payment of your progress billing No. 3 for June 1969 in accordance with the letter agreement between Oregon State Highway Department and Northwest Aluminum Company, Inc., dated December 5, 1968.

Sincerely,

Dick Peck

Richard E. Peck
Executive Vice President

Enc.
REP:ls

orig w/ checks
to Stoog 7-31-69

RECEIVED
JUL 31 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
JUN 25 1969
FOR FILING

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-1535

CABLE ADDRESS
"THEQUITY-NEW YORK"

June 20, 1969

Mr. Fred Klaboe
Assistant Chief Engineer
Oregon State Highway Department
Salem, Oregon 97310

Dear Fred:

Enclosed is our check in the amount of $4,860.14 in payment of your progress billing No. 2 for April and May, 1969 in accordance with the letter agreement between Oregon State Highway Department and Northwest Aluminum Company dated December 5, 1968.

Sincerely,

Richard E. Peck

Richard E. Peck
Executive Vice President

REP.rss
encl.

REFERRED TO
Skoog
By Asst. State Hwy. Engr.

Original hand delivered with check
6-24-69

RECEIVED
JUN 25 1969
FOR FILING

FORM K-20 2014 12-68 SP*23401-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Astoria, Oregon
June 19, 1969

To: Mr. R.D. Asbury
Division Engineer

SUBJECT: Information re:Original Location
N.W. Aluminum Co. Bypass
Oregon Coast Highway
Prefix 7905-569

Attn: Mr. Gerald Wimer

I am sending the following information to cover the work we have done on the Subject Project:

1 Detail Map
2 Prints of maps from the Aluminum Co.
one, showing their original boundary with coordi ates
one, showing the R/W as they now have indicated as being desired with coordinates of the two critical points.
4 Copies of letters pertaining to the revisions.

The one I wrote on April 1, 1969 refers to the meeting I had with Mr. Hare on December 27, 1968 when we went over his and my map in his office to see exactly where we had to go to miss their line, or boundary. There had been previous proposals but none that were concrete so far as I could determine.

Control data Hare & Weber GW

At this time I drew a line on a Right of Way map, thirty feet Westerly from the one hundred foot Right of Way Line on that map. This was the one that was to become the new Easterly Right of Way and I made my projection to accomplish this.

The dat of the meeting above comes from my diary where I noted that I had seen Mr. Hare and had drawn a line on our map which would adequately clear their area.

The accompanying Detail Map shows the realignment as we have established it on the ground and the projected line which will clear the two control points by 108.59 ' on the North and 106.56 ' on the South. This results in a maximum line shift to the West of approximately 50', this being in the crucial area, and still holds the tie-in at approximately the same place as before, Just South of the RailRoad crossing.

The re-work of this for the cost estimate may be done in the office except possibly for a few additional building ties on the Northerly end. The estimated cost of the construction would change very slightly from what we now have, since the job had been completed and ready to submit prior to the proposed adjustment. We have a firm figure of $2,502,300.48 including Engineering and Contingincies.

Loren A. Weber
Resident Engineer

file to Barbee
6-25-69

NOTED
F. D. KLABOE

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 16, 1969

SUBJECT: Additional Survey Work
Northwest Aluminum Company
Oregon Coast Highway

To: D. J. Barbee
DESIGN ENGINEER

Our original position was determined adjacent to the Aluminum Company through contacts with their local engineer Mr. Hare. We now find that they have submitted to our Resident Engineer Loren Weber, a plot plan requiring an additional offset of approximately 50 ft. It is my understanding that they are complaining about the survey costs at the present time. I believe that this request for an L-3 line should be documented from their main office. Please determine whether this contact should be made through your office or directly from the resident engineer.

R. D. Asburry
DIVISION ENGINEER

By J. B. Boyd
J. B. Boyd
ASST. DIVISION ENGINEER

JBB:lf

cc: Loren Weber

FORM E-20X' 5M4 7-58 22128

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Astoria, Oregon
April 1, 1969

SUBJECT: N. W. Aluminum Co. By-Pass
Old S. Unit - Astoria - Camp Rilea
Oregon Coast Highway
Prefix: 7905 - 569

To: Mr. R. D. Asbury
Division Engineer

Attn: Mr. Gerald Wimer

Herewith a print of the Right of Way Map showing the location of the revised alignment. This was projected after having conferred with Mr. Hare, Parsons and Jurdans Resident Engineer, with respect to where the Aluminum Co. wanted their boundary. This boundary line is shown on the above mentioned map in blue, 130' Westerly from and parallel to the original center line.

The status of the job at present is that the field work is done with the exception of possibly some minor work that may be indicated when we get to the office work. There has been practically no office work done as yet.

The prognosis is that we first have to re-work the Del Ray Beach Road Survey which will take possibly two weeks before we may restart this job, and the office work on the By-Pass job will take possibly a month so that we hope to have this completed by the middle to the end of May.

Loren A. Weber
X
Resident Engineer

RECEIVED
JUN 17 1969

OREGON STATE HIGHWAY DEPARTMENT

HIGHWAY BUILDING • SALEM, OREGON • 97310 • Phone 364-2171

8949

June 16, 1969

Mr. R. E. Simpson
Division Engineer
Bureau of Public Roads
477 Cottage Street, N. E.
Salem, Oregon 97301

S. Unit Astoria-
Camp Rilea Section
Oregon Coast Highway
Clatsop County

Attention Mr. G. L. Green

Dear Mr. Simpson:

In our telephone discussion on June 12 you requested a map showing the part of this line that would be revised due to the construction of the aluminum plant.

I am enclosing a small sketch map on which I have colored in red the tangent whose northerly end will be moved 250 to 300 feet and whose south end will remain as is.

Very truly yours,

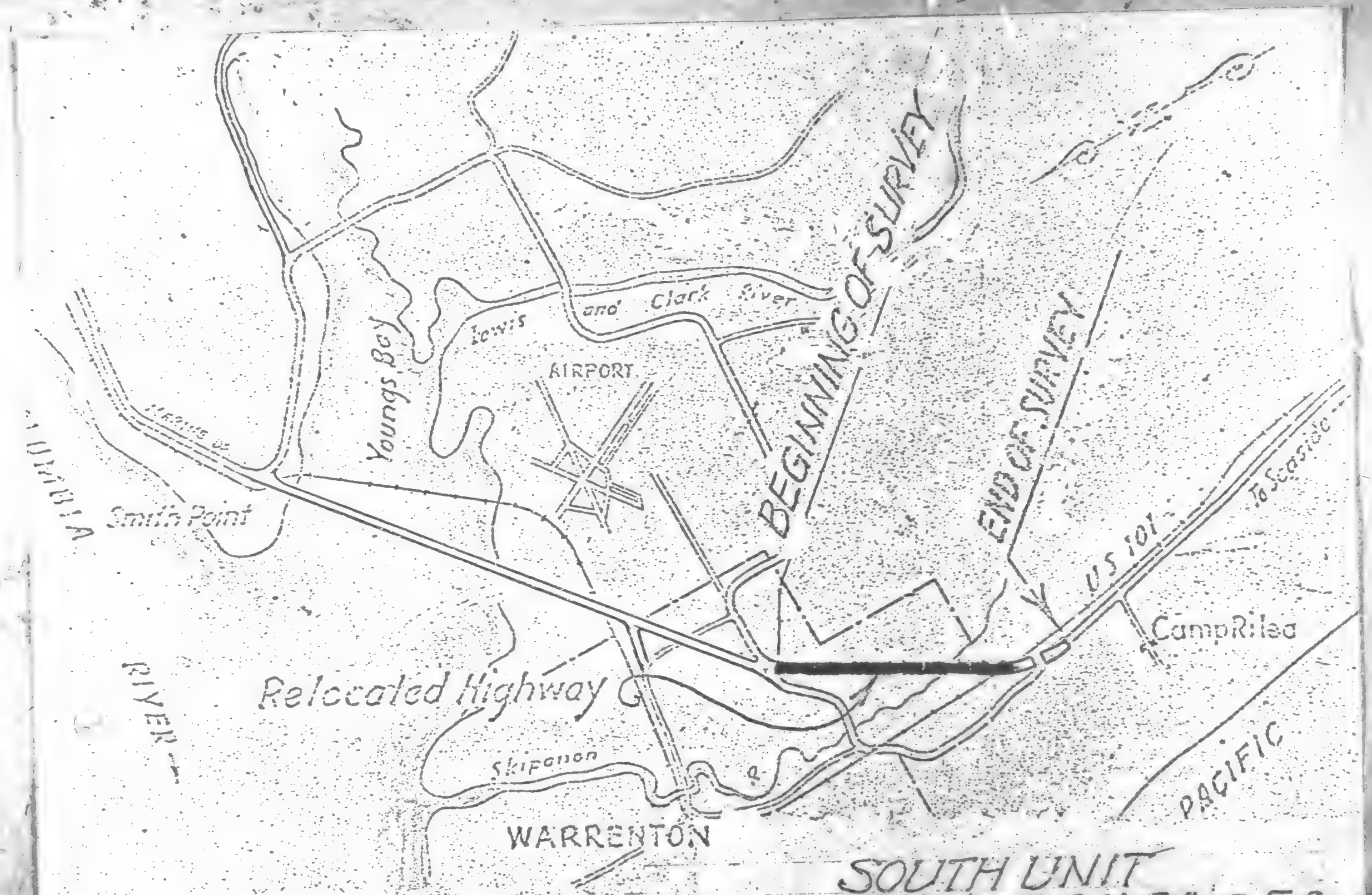
G. E. ROHDE
Chief Counsel

John R. Oakes
Assistant Right of Way Engineer

NOTED
R. L. PORTER

JRO:DH
Encl.
cc R. L. Porter /w/ encl.
F. B. Klaboe
L. H. Young /w/ encl.
D. J. Barbee
V. E. Skoog
G. E. Rohde
M. R. Mitchell

RECEIVED
JUN 16 1969
OFFICE OF
STATE HIGHWAY ENGINEER



SOUTH UNIT
ASTORIA-CAMP RILEA SEC.
OREGON COAST HIGHWAY
CLATSOP CO.

RECEIVED
MAY 28 1969
FOR FILING

8949

May 22, 1969

Mr. Richard E. Peck
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway
New York, N. Y. 10004

2799

Dear Mr. Peck:

The field survey activities for the relocation of the Oregon Coast Highway adjacent to your development at Warrenton, Oregon is nearly complete. This work was being done under your letter of understanding dated December 5, 1968, and our endorsement of December 16, 1968. The alignment change was made in conformance with a location given by your Project Engineer, Mr. Hare.

We have been advised by our Division Engineer, R. D. Asburry, that a request has been received from Mr. Hare to make a further revision which would move the highway alignment approximately 50 feet further west. The Highway Department has no objection to this move but costs for the survey will increase by approximately $7,500.

We are suspending activity on this survey pending your endorsement of this additional cost over and above that previously indicated.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

F. B. Klabee
Assistant State Highway Engineer

cc: Forrest Cooper
R. L. Porter
V. E. Skoog
D. J. Barbee
R. D. Asburry

GCW:jp srb

7005-569

FORM E-30 (12-67)

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
May 16, 1969

SUBJECT: Additional Survey Work
Northwest Aluminum Company
Oregon Coast Highway

To: D. J. Barbee
DESIGN ENGINEER

Our original position was determined adjacent to the Aluminum Company through contacts with their local engineer Mr. Hare. We now find that they have submitted to our Resident Engineer Loren Weber, a plot plan requiring an additional offset of approximately 50 ft. It is my understanding that they are complaining about the survey costs at the present time. I believe that this request for an L-3 line should be documented from their main office. Please determine whether this contact should be made through your office or directly from the resident engineer.

R. D. Asburry
DIVISION ENGINEER

By J. B. Boyd
J. B. Boyd
ASST. DIVISION ENGINEER

JBB:lf

cc: Loren Weber

RECEIVED
MAY 21 1969
FOR FILING

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

CABLE ADDRESS
"THEQUITY-NEW YORK"

AREA CODE 212
425-3535

8949

May 16, 1969

Mr. Fred B. Klaboe
Asst. State Highway Engineer
State of Oregon Highway Department
Salem, Oregon 97310

Dear Fred:

I am pleased to enclose our check in the amount of $5,306.64 payment of invoice No. 98370 for costs incurred by the Oregon State Highway Department in the first quarter of 1969 for the relocation of new highway 101 in Warrenton in accordance with the letter agreement between Northwest Aluminum Company and the Oregon State Highway Department dated December 16, 1968.

See 7-23-71 this file

Sincerely,

Richard E. Peck

Richard E. Peck
Executive Vice President

REP.rss
encl.

5-21-69

REFERRED TO
Skoog - W/checks
BY ASST. STATE HWY. ENGR.

cc Young - Barbie

NOTED
F. B. KLABOE

RECEIVED
MAY 19 1969
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
DEC 4 - 1968

FOR FILING

8949

December 3, 1968

AIRMAIL

Mr. Richard E. Peck
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway, Room 711
New York, New York 10004

Dear Mr. Peck:

Referring to our telphone conversation of this date, the difference in costs between the located line and an alternate line on the Astoria-Camp Rilea Section is $80,073. The alternate line is one that is clear of your proposed aluminum plant development but which will require a small increase in estimated construction costs; some extra engineering costs; and some additional right-of-way costs.

If anything further is needed, please let us know.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms

cc Forrest Cooper
F. B. Klaboe
Victor D. Wolfe
D. J. Barbee
R. D. Asbury

Astoria - Camp Riley 1 Lane
Cost Summary Alternate Line.

Construction Costs	+ 25,000
Survey Costs (1.9 Miles)	15,000
R/W & Aquisition	60,000
Total	100,000

This Summary Pertains to total project Sta. 168-to317-

Astoria – Camp Rilea (S. Unit) 4-Lane

Davies July 68

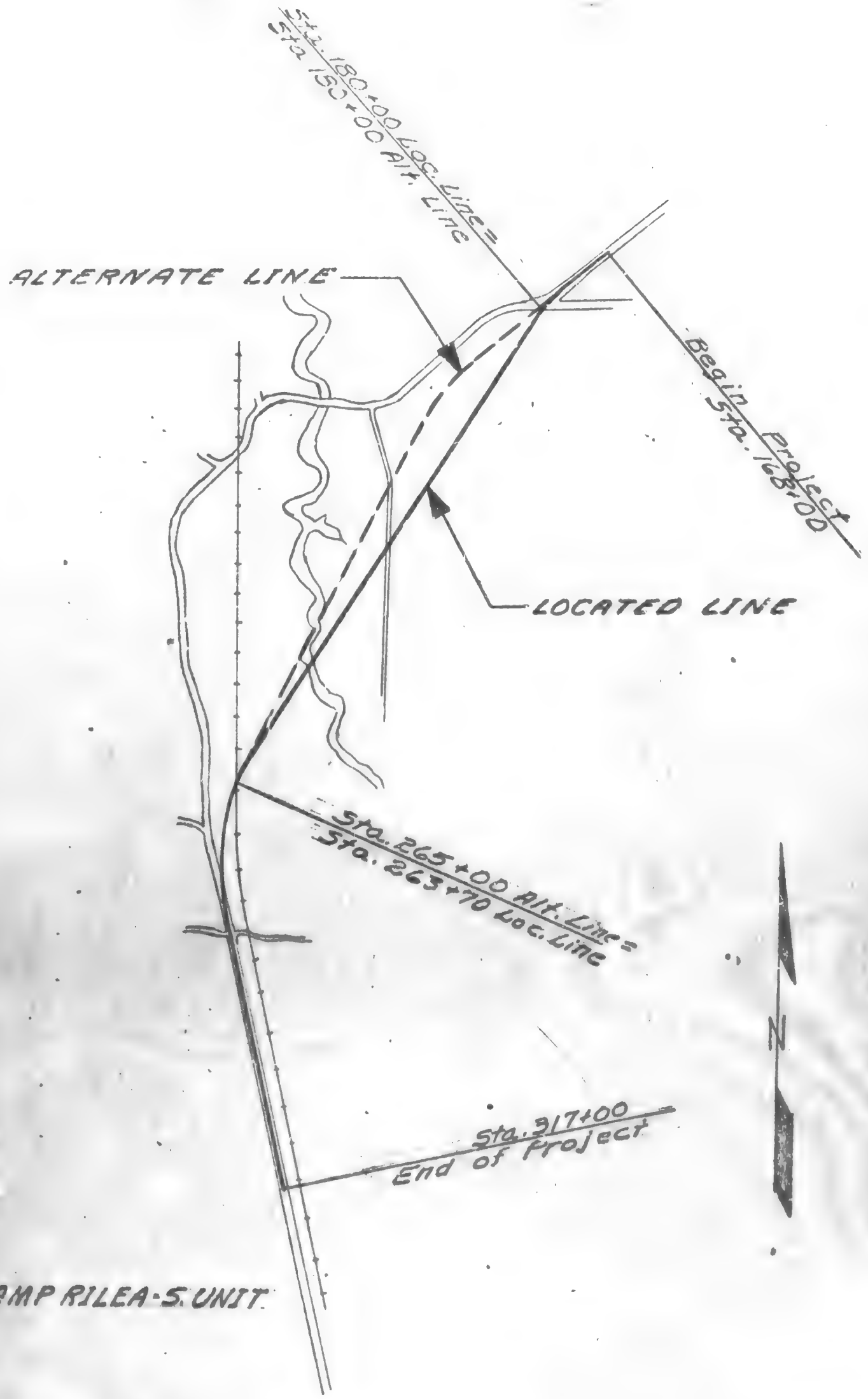
Item	Located Line	Alternate Line
Construction Cost (1)	$1,742,602	$1,753,097
Survey Cost (2)	17,536	27,693
R/W Cost (3)	252,391	311,110
R/W Aquisition Cost (4)	30,500	30,033
TOTALS	$2,043,029	$2,121,933
Surplus property on Located Line to be sold if alternate line is built $2669	*−1,169	
Administrative cost of selling 1500	$2,041,860	
*Credit to Loc. Line $1169		
Total Cost Alternate Line		$2,121,933
Total Cost Located Line		2,041,860
Addit. cost for Alternate Line		$80,073

(1) Construction costs are computed for the entire project from station 168+00 to 317+00 on both the Located and the Alternate Lines.

(2) Survey costs on the Located Line are the actual charges to this section to date. On the Alternate Line the same charges are used with a prorated additional cost for the additional length (1.7 Sta.) plus a prorated cost ($10,004) for a section (Sta. 183± to 268±) on the located line that cannot be used if the alternate line is used.

(3) R/W costs are actual cost of purchased parcels plus appraised cost for R/W not yet purchased. The estimate covers the entire project (Sta. 168± to 317±) The higher cost on the Alternate Line as compared to the Located Line is due to the fact that pari of the located line right-of-way was purchased from the county for $2.

(4) R/W aquisition costs are computed as follows: On purchased parcels 6%, on formally appraised parcels add 20% contingencies, then 6% of that total. On Liason appraisals no allowance!



ASTORIA - CAMP RILEA - S. UNIT

RECEIVED
OCT 29 1968
FOR FILING
8949

October 29, 1968

Mr. Glenn L. Jackson, Chairman
Oregon State Highway Commission
c/o Pacific Power and Light Company
216 W. Main Street
Medford, Oregon 97501

Dear Mr. Jackson:

The Northwest Aluminum Company map included with your letter of October 28 shows the same relocation for the Oregon Coast Highway as previously proposed.

As stated in our letter to Mr. R. J. Hare, Resident Engineer for the project, dated June 19 (copy enclosed), our rough estimate of the additional cost to the Department for the relocation is $100-$150,000. Since the June 19 communication, we have heard nothing further concerning the matter.

Very truly yours,

Forrest Cooper
State Highway Engineer

Enclosure
FBK:srb lms
cc: Portland Office

bc: R. L. Porter
F. B. Klabee
Victor D. Wolfe

OREGON STATE HIGHWAY COMMISSION

OFFICE OF GLENN L. JACKSON • % Pacific Power and Light Co. • Medford, Oregon • 97501

TOM McCALL
GOVERNOR

COMMISSIONERS
GLENN L. JACKSON, Chairman
Medford
FRED W. HILL, Member
Pendleton
THADDEUS B. BRUNO, Member
Portland

October 28, 1968

Mr. Forrest Cooper
State Highway Engineer
State Highway Building
Salem, Oregon 97310

Dear Forrest:

Before you leave, could you take a quick look at the latest pitch from Northwest Aluminum?

Attached is a map and letter which I received from Dick Peck this morning. I don't know whether or not this proposed relocation is the same as we received before. Could you give me a reading on what the relocation would cost, net to the state, if we were to agree to it?

Sincerely yours,

Glenn L. Jackson
Chairman

GLJ:cjr

Enclosures

RECEIVED
OCT 29 1968
OFFICE OF
STATE HIGHWAY ENGINEER

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

October 23, 1968

CABLE ADDRESS
"THEQUITY-NEW YORK"

RECEIVED
OCT 25 1968
OFFICE OF
L. Jackson

Mr. Glen Jackson
Chairman of the Board
Pacific Power & Light Company
Public Service Building
Portland, Oregon

Dear Glen:

Despite the terrible weather conditions and the resulting significant delays in completion of the grading of the site in Warrenton, Oregon, we feel we should begin now to discuss our problems with the State Highway Commission regarding the location of the proposed extension of new Highway 101 which cuts through the northwest corner of our site. Enclosed is a copy of an aerial photograph showing the plant site and the State Highway Commission's right of way for the new Route 101 in dark shading, and our suggestion with respect to a revised location of such new Highway 101. Also marked on the enclosed photograph in green color is the property line of the site we purchased from you.

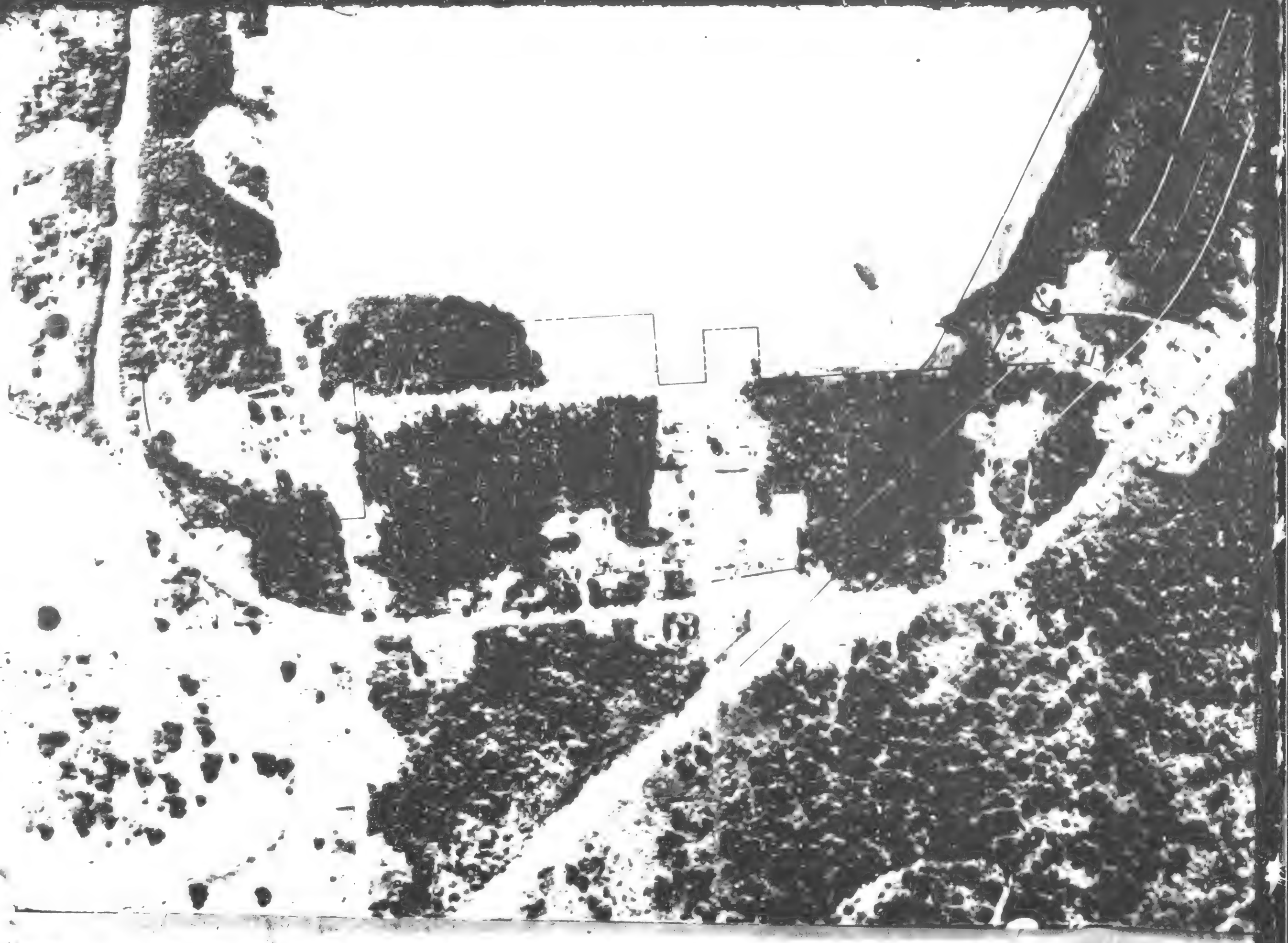
I expect to be in Oregon next week and I will call you prior to coming out so that we can arrange a mutual date to get together. I would appreciate very much hearing your suggestions at that time as to how best we can proceed on this matter.

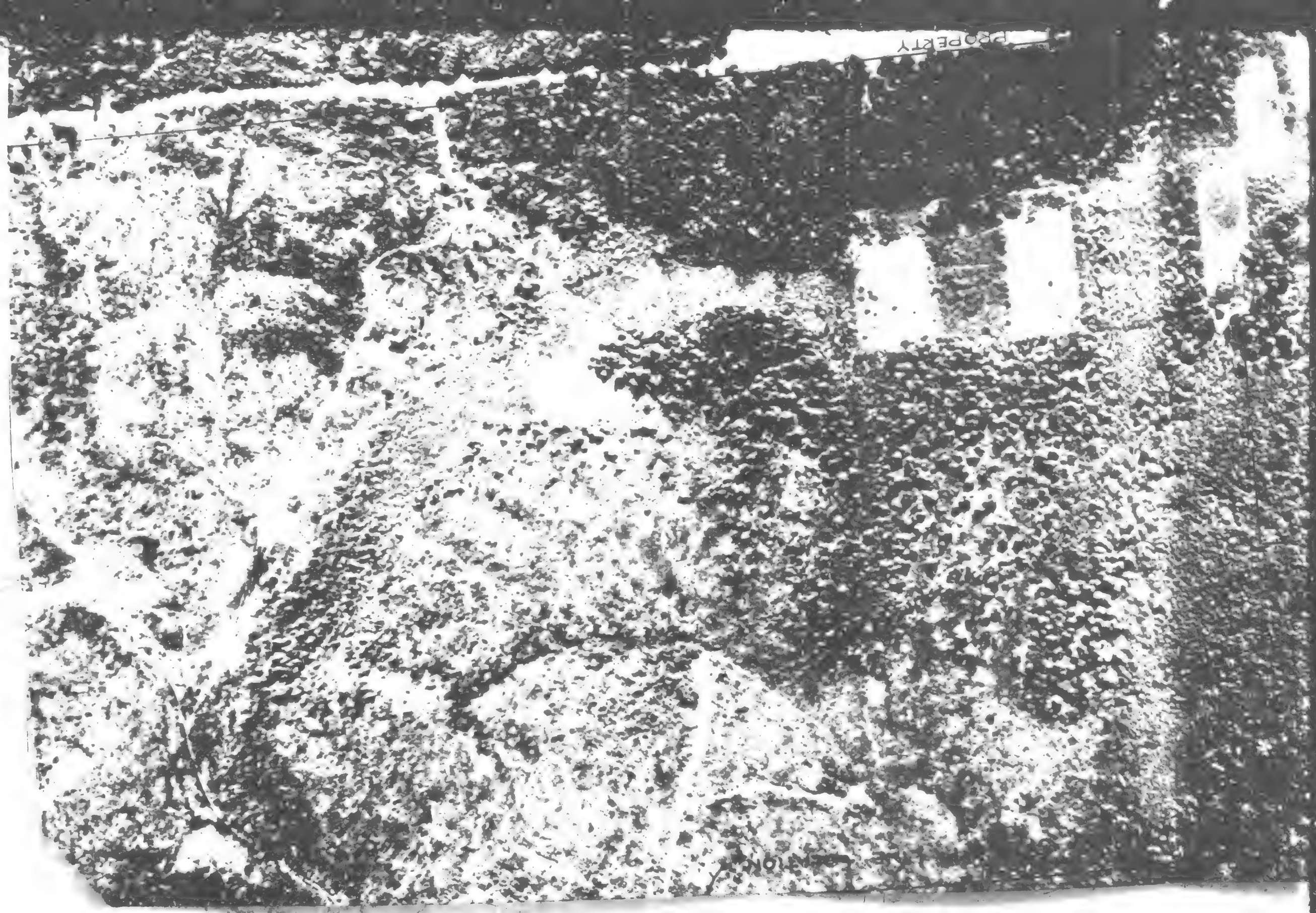
Sincerely,

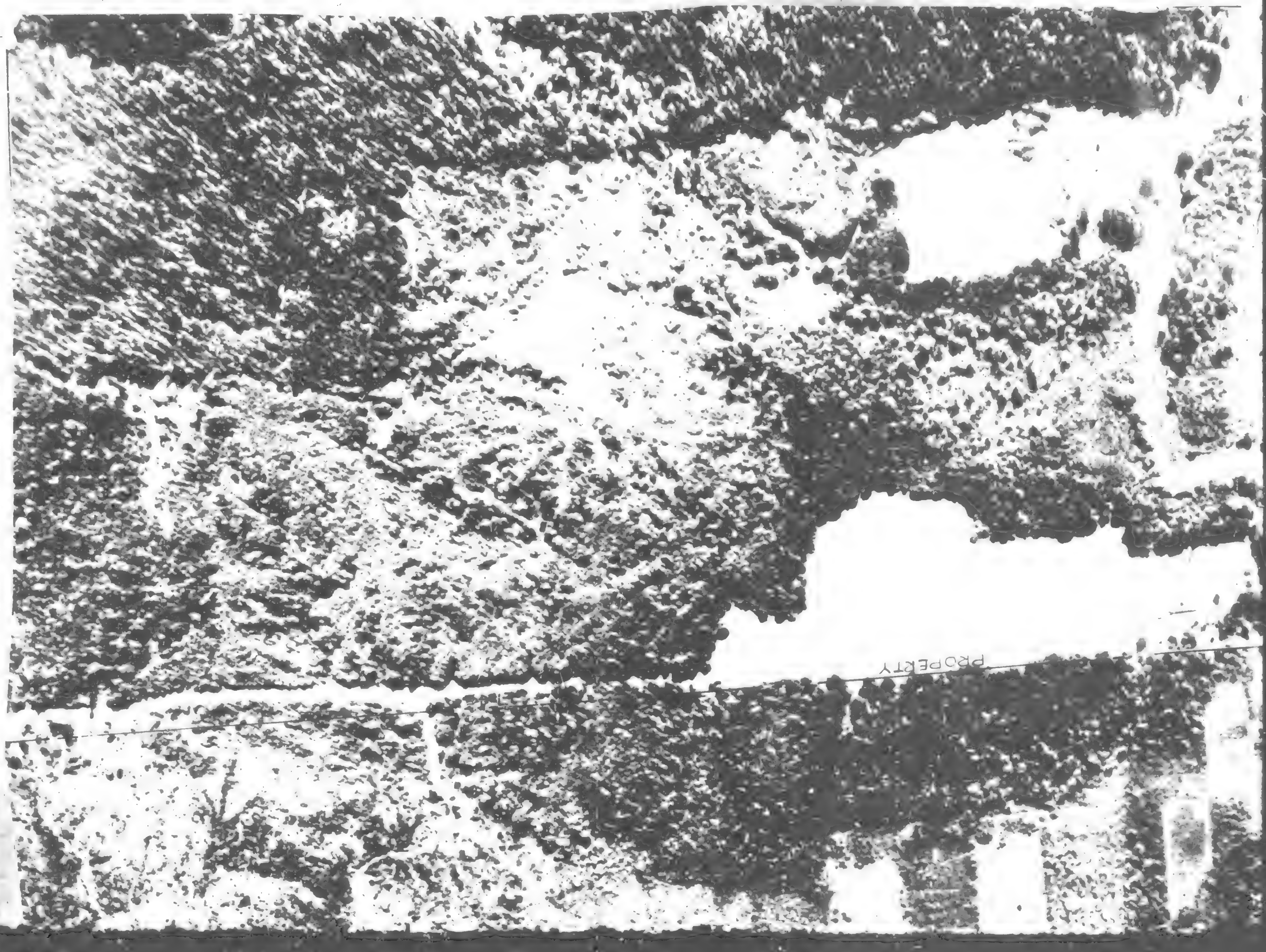
Dick Peck

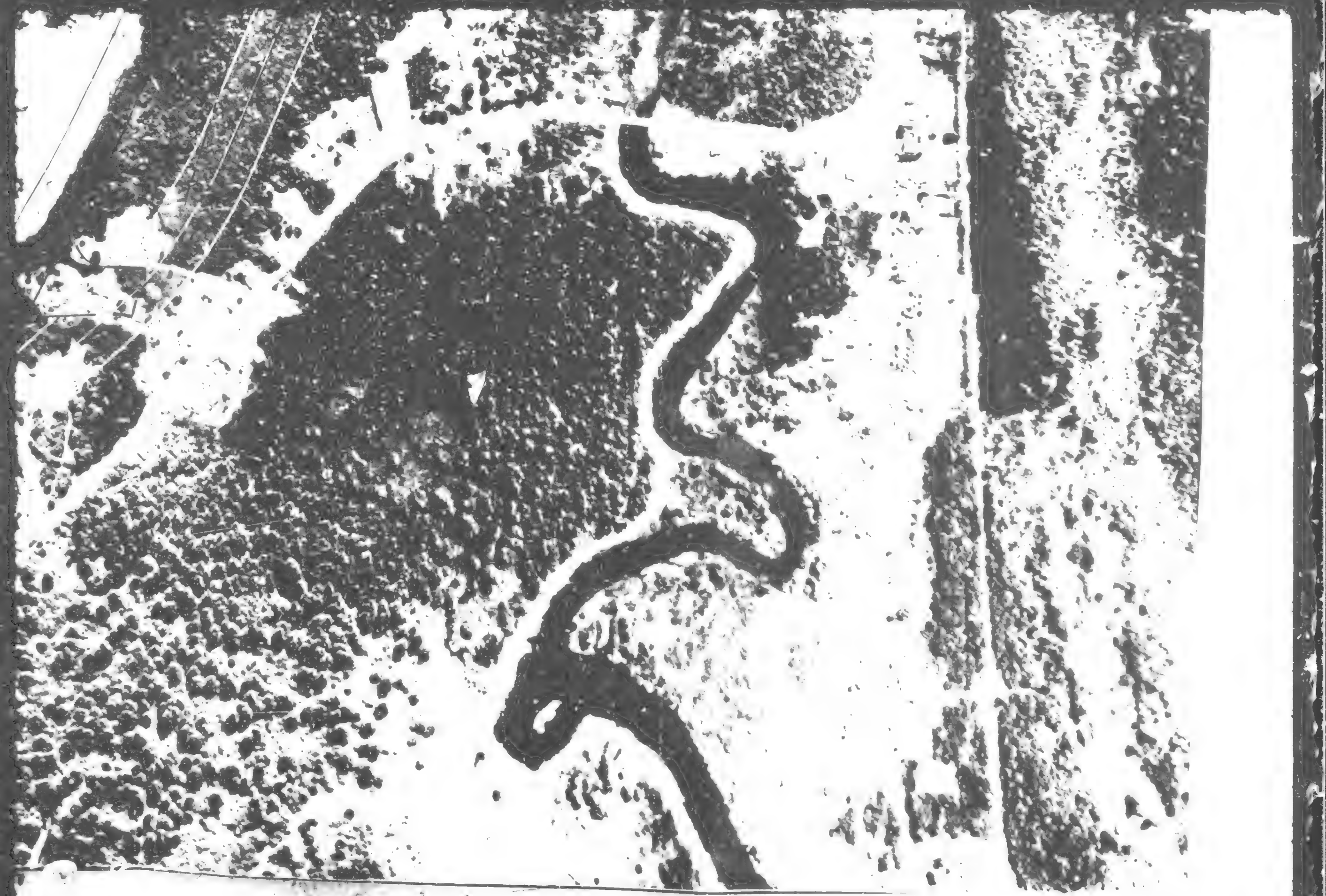
Richard E. Peck
Executive Vice President

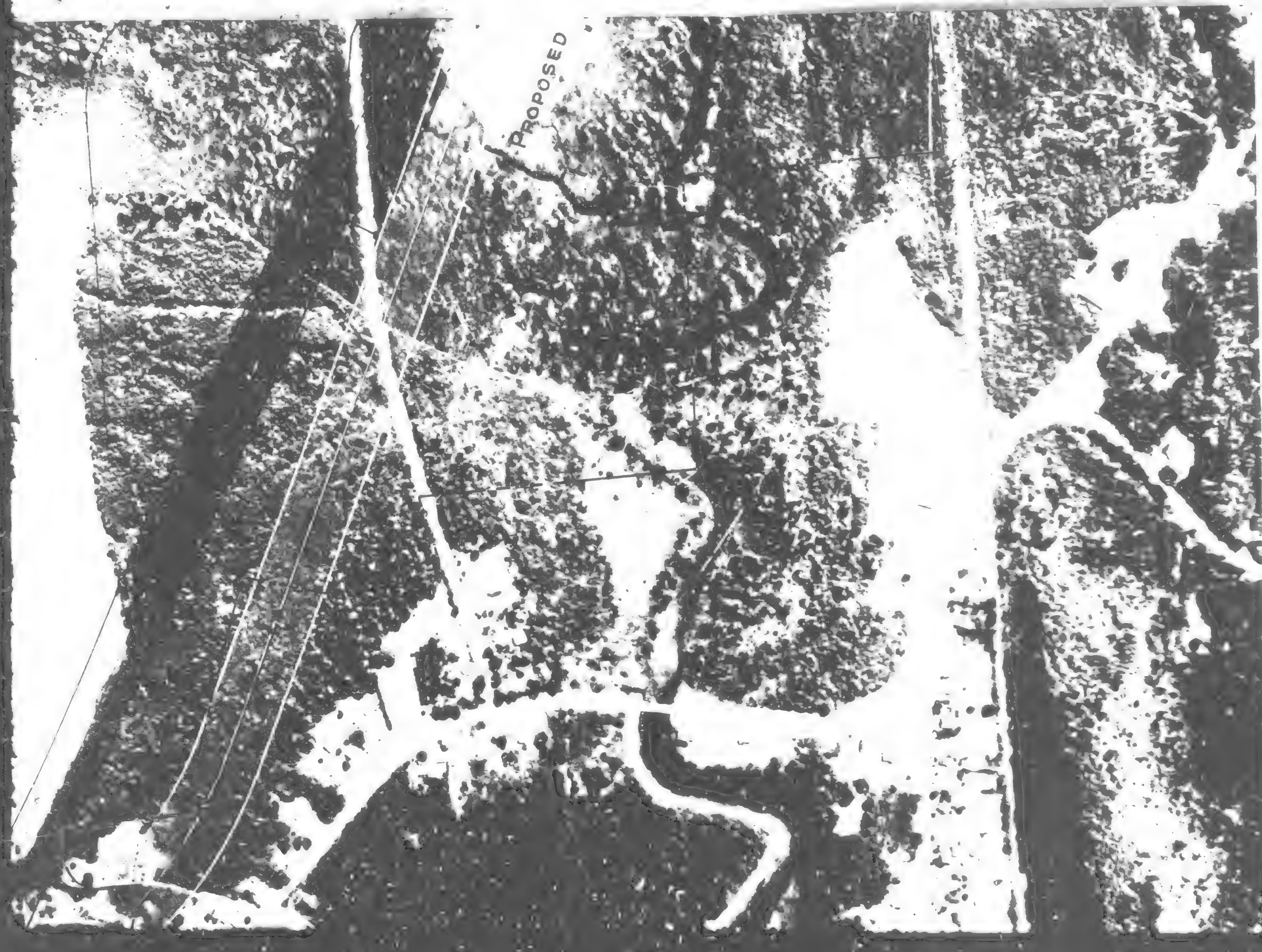
REP.rss
encl.

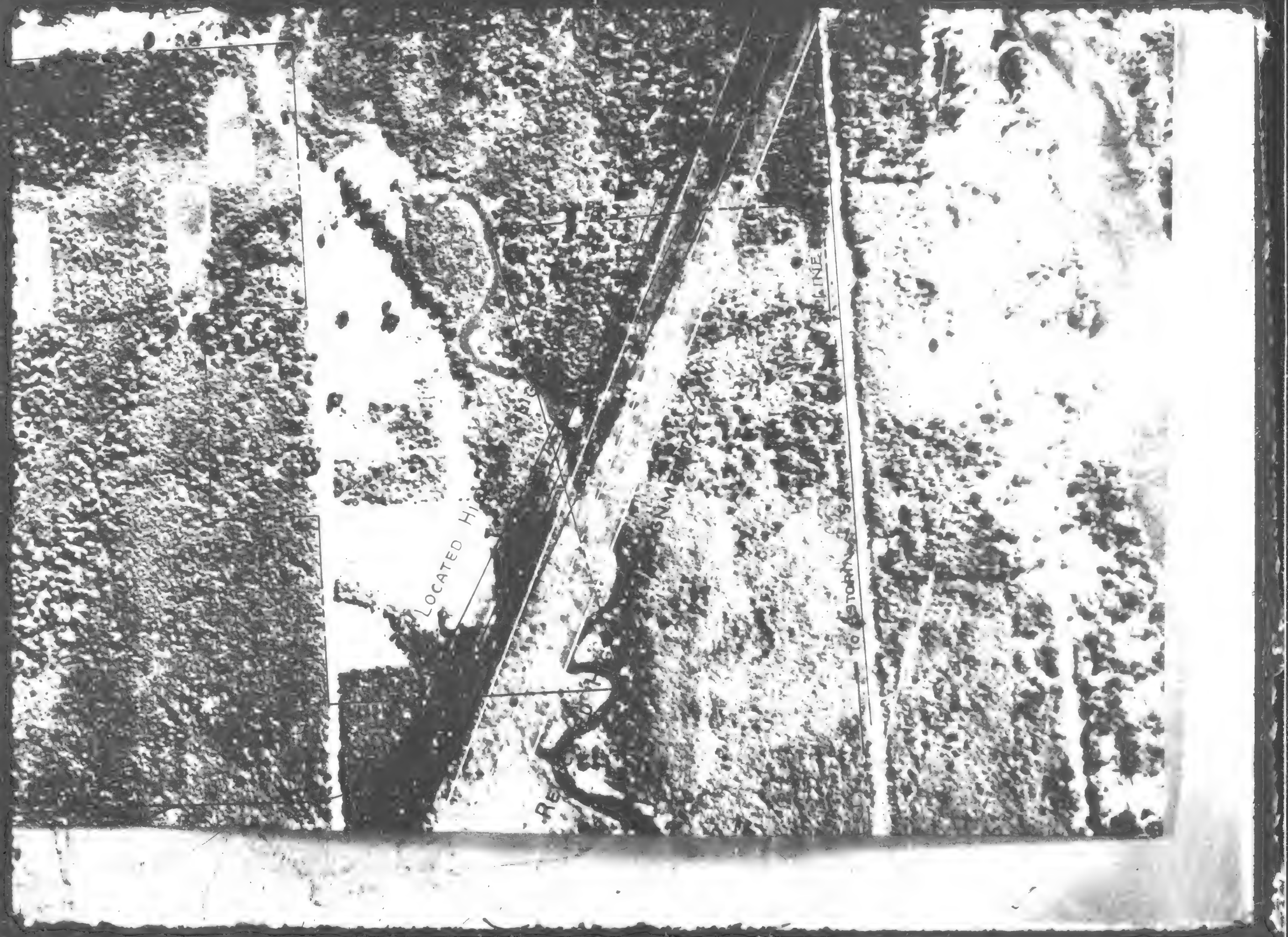



PROPERTY
LINE


PROPERTY




PROPOSED


LOCATED HI
RE
TO STORM
SNM
LINE

RECEIVED
JUN 21 1968

8949

June 19, 1968

Mr. E. J. Hart, Resident Engineer
Parsons-Jurden Corporation
Post Office Box 600
Astoria, Oregon 97103

Dear Mr. Hart

Thank you for your June 13 letter concerning a possible conflict between your project near Warrenton and the relocation for the Oregon Coast Highway. As Mr. Cooper is out of town for several days, he asked that I reply to your communication.

A plan very similar to the one you submitted has been considered by this Department but it will cost from $100,000 to $150,000 more than the presently located route. It is not felt that the Oregon motorist should bear this additional cost, but if your company is willing to underwrite the added expense, this Department will make a detailed estimate so that the cost can be accurately determined and an agreement prepared.

We would appreciate being advised as to your wishes in the matter.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

RLP:ms
cc Forrest Cooper
F. B. Klabee
Victor D. Wolfe
R. D. Asburry

Parsons-Jurden Corporation
P. O. Box 600
Astonia, Oregon 97103

June 13, 1968

Mr. Forrest Cooper
State Highway Engr.
Salem, Oregon, 97310

P-J Job #180-2
Clatsop Project
Relocation US Highway #101

Dear Mr. Cooper:

Referring to our telephone conversation of yesterday, our plans call for provision for future extension of the aluminum plant to the west, which will include part of the right of way shewn on the existing proposed re-alignment of US Highway 101.

To satisfy these requirements we offer the following suggestions in outline;
The tangent of Highway 101 as at present to be extended, the PI for the relocation to be moved about 1200 feet further towards the south, and a 2 dg.curve plotted to line up with the intersection of the coast road as presently planned. This would avoid a reverse curve. The proposed SP & S Railway spur would therefore be to the east of the new highway, which it would not need to cross. The limit of the anticipated Plant extension is shewn on the enclosed sketch, as also the proposed PI on the extension of the tangent of the existing highway.

A copy of this letter is being sent to our Home Office. Mr. R. H. Raring, our Project Manager, will be happy to give any help needed.

We much appreciate your cooperation in this matter.

Very truly yours,

H. J. Hare
Res. Engr.

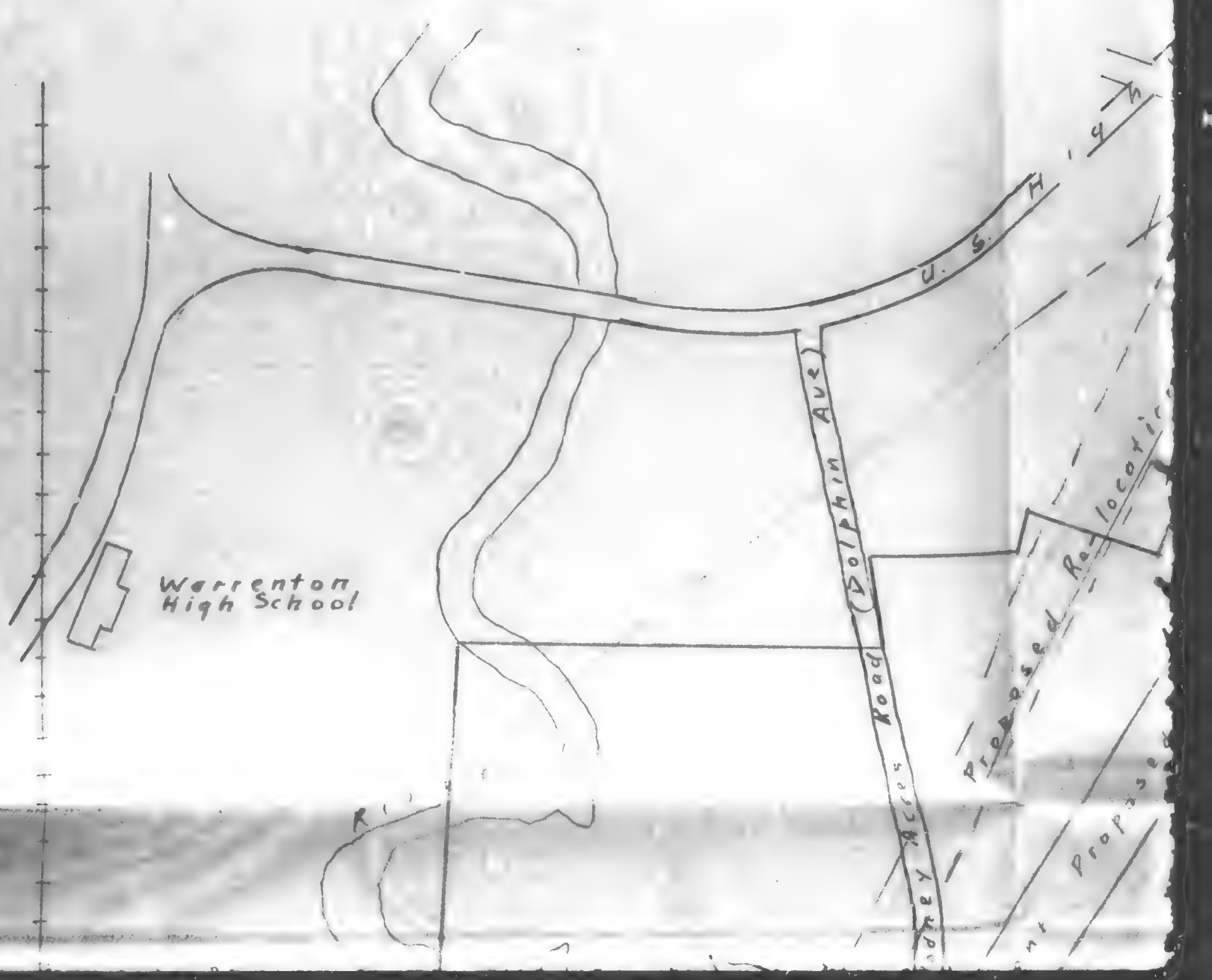
Encl: Sketch

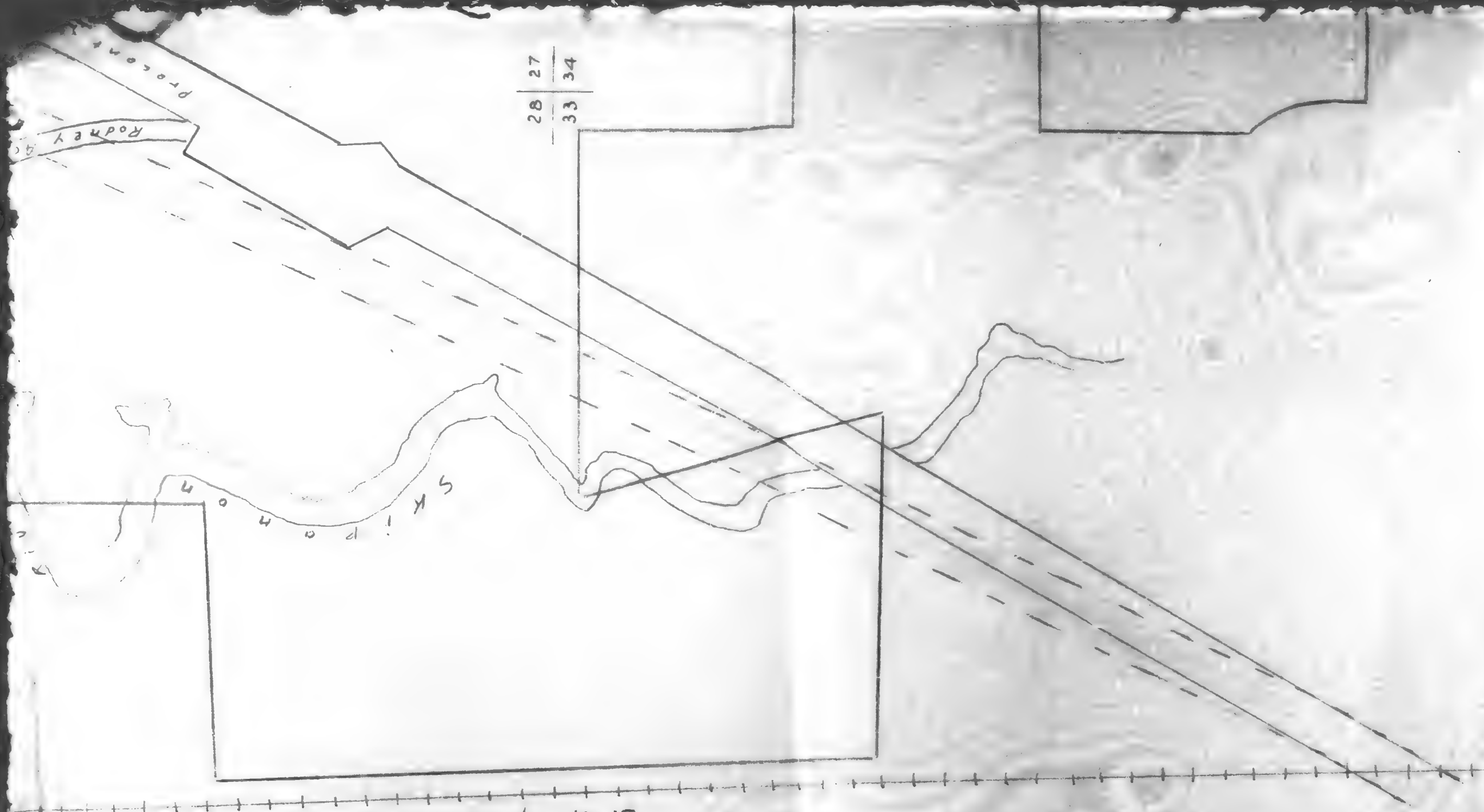
RECEIVED
JUN 14 1968
OFFICE OF
STATE HIGHWAY ENGINEER

- lets discuss
Porter

N

Proposed Pl
193 ± 62.01
(appr 0.2)




Rodney
28
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34
S. P. & S. Ry

Present Prop

8	27
X	34

Warrenton City Limits

RELOCATION OF U.S. HIGHWAY 101.

Scale 1" = 400'

6.12.69 H.J.H.

Plant Site Boundary

FORM E-20X—50M—7-66 SP°23611-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Astoria

May 13, 1968

SUBJECT: South Unit Astoria - Camp Rilea
N.W. Aluminum Plant Proposal

To:

Mr. R.D. Asburry
Division Engineer

As per your telephone instructions of May 13, I went to see Mr. Hare, Parsons - Jurden's Resident Engineer with regard to their plans in the area. Mr. Hare has informed me that this has been brought to the attention of Mr. Peck of Nortwest Aluminum who has indicated they still want the land occupied by our present location.

As nearly as we can tell from the preliminary maps this would require us to move our location centerline roughly three hundred feet in the area of the plant site. Mr. Hares initial thought was that we could do this by a reverse curve system to skirt only the area in question but I told him Mr. Morgans idea was to use one curve to get around the plant area then continue the new tangent to the curve we now have across the Rail Road at roughly Sta. 263 ±. After an inspection of the map I believe Mr. Hare is pretty well convinced that this is by far the better method especially when it appears that the major right of way cost will be on the northerly end or opposite the plant site.

Mr. Hare indicated that he would be interested in a cost estimate of the revision as soon as some definate plan of action could be agreed upon.

I have enclosed a sketch map showing an approximation of their proposed location.

Routing

Morgan	Pease
Decker	Morelock
Bond	Trout
Barbee	Scott
Walker	Wills
Glenn	Litchfield
Swan	Olson

RECEIVED
MAY 15 1968
CONSTRUCTION DIVISION

Loren A. Weber
Resident Engineer

c.c. R.D. Morgan

FORM 1810

JUN 8 1968

FOR FILE

H. P. MOY,
SECRETARY
CHIEF ENGINEER

8949

SPOKANE, PORTLAND AND SEATTLE RAILWAY COMPANY

OREGON TRUNK RAILWAY
OREGON ELECTRIC RAILWAY COMPANY
RUTH REALTY CO.

OFFICE OF CHIEF ENGINEER

1101 N. W. HOYT STREET
PORTLAND, OREGON 97207

June 4, 1968

Mr. Edward H. Boring
Project Manager
Parsons-Jordan Corp.
26 Broadway
New York, N.Y. 10004

Dear Mr. Boring:

I make reference to my letter of April 9, 1968, wherein I mentioned my working with the Oregon State Highway Department on April 5th to discuss possible truck ingress into Northwest Aluminum Company plant site from our Astoria Line main track and the possibility of making use of certain portions of the Oregon State Highway Department right of way for access into your plant site.

I am wondering if anything has transpired in the interim between Parsons-Jordan Corp. or Mr. Peck with the Oregon State Highway Department on possible highway relocation through the plant site area. Until definite information is received in this office relative to such highway relocation matters, it is almost impossible to progress a completed survey and estimate for trackage to serve the plant site. Anything you may have on this which would help us would be appreciated.

Very truly yours

(Signed) H. P. Moy
Chief Engineer

HPM:c
cc-Mr. Wilson F. McLennan
Mr. Richard E. Peck
Mr. Jack H. Harris
Mr. Forrest Cooper

NOTED
FORREST COOPER

RECEIVED
JUN 7 1968
OFFICE OF
STATE HIGHWAY ENGINEER

FORM 1810

SPOKANE, PORTLAND AND SEATTLE RAILWAY COMPANY

OREGON TRUNK RAILWAY
OREGON ELECTRIC RAILWAY COMPANY
RUTH REALTY CO.

OFFICE OF CHIEF ENGINEER

1101 N. W. HOYT STREET
PORTLAND, OREGON 97207

H. F. MOY,
SECRETARY
CHIEF ENGINEER

April 3, 1968

Mr. Robert H. Roring
Project Manager
Parsons-Gardner Corp.
26 Broadway
New York, N.Y. 10004

Dear Mr. Roring:

I have your letter of April 2, 1968, wherein you indicated that you had received all of the specifications, clearance diagrams, etc. for your use in design of yard trackage for your Kinzua Project (Job No. 4150-E).

On Monday, April 1st, I met with Oregon State Highway Engineer Forrest Cooper and his staff members, Rod Porter and Fred Hinkey, to discuss possible track layouts into Northwest Aluminum Company plant site from our Ashcreek line with Track. As you recall at the time of our meeting on March 29th I had hoped to be able to give him (Mr. Cooper) a certain amount of Oregon State Highway Department right of way in the event the Highway was to be relocated as requested by Mr. Richard Peck. Mr. Cooper indicated that he had discussed Mr. Peck's letter dated November 8, 1967, with me of April 1st and requested we supply Mr. Peck in regard to the possible relocation of the highway in the plant area. I am handing you (as well as others receiving copy of this letter) copy of letter dated November 8, 1967, which Mr. Cooper addressed to Mr. Peck.

cc by: Jackson
Davis
Hinkey

NOTED
FORREST COOPER

The Oregon State Highway Department is not in a position at this time to give any right of way available to the S.P.& S. Railway and will not be until such time as the relocation matter has been straightened out with Northwest Aluminum Company. Therefore, I am unable to proceed with any track layouts until an agreement is reached between the Northwest Aluminum Company and the Oregon State Highway Department on the final location of the four-lane highway through this particular area. Inasmuch as your organization requested that trackage be constructed and ready for use by August 1st of this year, it is most important that negotiations be completed as soon as possible between the Highway Department and the Aluminum Company so that the S.P.& S. Railway will be in a position to deal further with the Highway Department on this matter.

Mr. Cooper did indicate to me that they would cooperate in every way possible so that the S.P.& S. Railway could work something out with the Highway Department on their present right of way. Your early attention to this matter would be appreciated.

Very truly yours

(Signed) H. F. Moy
Chief Engineer

HFM:
cc-Mr. Milton F. Reigelsperger
Mr. Richard S. Peck
Mr. Joel H. Harris
Mr. Fremont Cooper

RECEIVED
MAY 31 1968
FOR FILING
8949

May 31, 1968

Mr. Glenn L. Jackson, Chairman
Oregon State Highway Commission
c/o Pacific Power and Light Company
216 West Main Street
Medford, Oregon 97501

Dear Mr. Jackson:

In response to your request that I review the matter of right-of-way for the South Unit, Camp Rilea Section of US101, I give you the following:

A substantial part of the right-of-way for relocation of this unit was purchased October 10, 1963.

During the spring of 1967, it was called to our attention that plans were being made for the construction of an aluminum plant which would require the taking of some of the right-of-way already purchased. At the request of the Commission, we made an investigation and determined the estimated cost of moving the line would be $150,000.

On August 4, 1967, an inspection was made on the site and a report was submitted which stated: "Considerable of the area has been cleared off but could find nobody in this area." We were able, however, to get a New York address of the Northwest Aluminum Company from the local Chamber of Commerce. We also learned that two Portland attorneys, Clifford B. Alterman and Raymond M. Kuil, were representing the Company. A letter was directed to Mr. Alterman on August 7, the "meat" of which is contained in the following quote:

> "It is requested that a representative of this company either meet with a representative of the State Highway Department to discuss our mutual problems of this area or submit a letter to the State Highway Department stating your plans and wishes regarding your proposed development."

On August 9, 1967, we received a letter from Mr. Kell requesting a map. This was furnished on August 18, with a request that ". . . we hear from you when your plans for this area become definitely developed."

We received a letter from Mr. Altavum dated August 21, 1967, which stated that the matter had been referred to his principals. Mr. Altavum stated: "I would assume that sometime within the near future plans will reach a sufficient point of finality to respond specifically to your question."

On October 4, 1967, we received a letter from Richard E. Peak, Executive Vice President of Northwest Aluminum Company, in which he refers to an alternate proposed highway, stating that the proposed alternate right-of-way would be acceptable to the Aluminum Company in relationship to the proposed plot plan and proposed space required for expanding the pot lines. Mr. Peak closed his letter by stating: "Upon my return, I will be in touch with you."

On November 8, 1967, we addressed a letter to Mr. Peak stating, in effect, that we were well along in our planning and right-of-way acquisition but would be willing to move if the State could be reimbursed for the expenses involved.

The file contains considerable other information, such as communications with representatives of the SP&S Railway which seems to have little bearing on the problem.

On April 12, 1968, I directed a letter to Harold Hare, Resident Engineer, Parsons and Jurden, c/o Port of Astoria, calling attention to the fact that the Company ". . . may need right-of-way owned by the Highway Commission. . .". This letter was acknowledged by Mr. Hare and in his letter, he stated:

> ". . . Mr. Ted Hodgen, the Port of Astoria manager, has been in contact with Mr. Glenn Jackson and as a result of which a meeting has been arranged with one of your Engineers to be held in Astoria on Tuesday, April 23rd.
>
> "It is expected the situation will be clarified at this meeting."

A letter in our file dated May 13, 1968, discusses the meeting with Mr. Hare but mostly in terms of a possible revision in highway location. Although the file does not contain any documentation, our people reported that Mr. Hare felt that a revision could be made in the plant site which would eliminate the problem. Our people were lead to believe that we would receive word from Mr. Hare.

As no word was received, Mr. Hare was again contacted, at which time he told our engineers that they did not wish to move and this is where the matter now stands, except I believe someone is doing some clearing and grading at the plant site.

I hope that this is what you wished from us and that you can make some sense from this somewhat disjointed account. This has been a difficult matter to come to grips with and I would appreciate your instructions as to how to proceed.

Very truly yours,

Forrest Cooper
State Highway Engineer

EE:fs

cc Portland Office

R. L. Porter
F. E. Kinhoe
Victor D. Wolfe

RECEIVED
APR 2 1 1968
FOR FILE
8949

Parsons-Jurden Corporation
P. O. Box 600
Astoria, Oregon 97103

April 19, 1968

Mr. Forrest Cooper
State Highway Engineer
State of Oregon
State Highway Department
Salem, 97310

Dear Mr. Cooper:

Replying to your letter of April 12th regarding the Northwest Aluminum project at Warrenton, Mr. Ted Hodges, the Port of Astoria manager, has been in contact with Mr. Glenn Jackson, and as a result of which a meeting has been arranged with two of your Engineers to be held in Astoria on Tuesday, April 23rd.

It is expected the situation will be clarified at this meeting.

Very truly yours,

H. J. Hare
Resident Engr.
Parsons-Jurden Corporation

HJH:mh

NOTED
F. B. KLABOE

NOTED
R. L. PORTER

NOTED
FORREST COOPER

RECEIVED
APR 22 1968
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
APR 12 1968

FOR FILING

April 12, 1968

Mr. Harold Hare
Resident Engineer
Parcon and Jurica
c/o Port of Astoria
Astoria, Oregon 97103

Dear Mr. Hare:

I understand that you are the individual responsible for the acquisition of property for the aluminum plant to be built near Warrenton.

Information previously sent to this office indicates that you may need a right-of-way owned by the Highway Commission in that area.

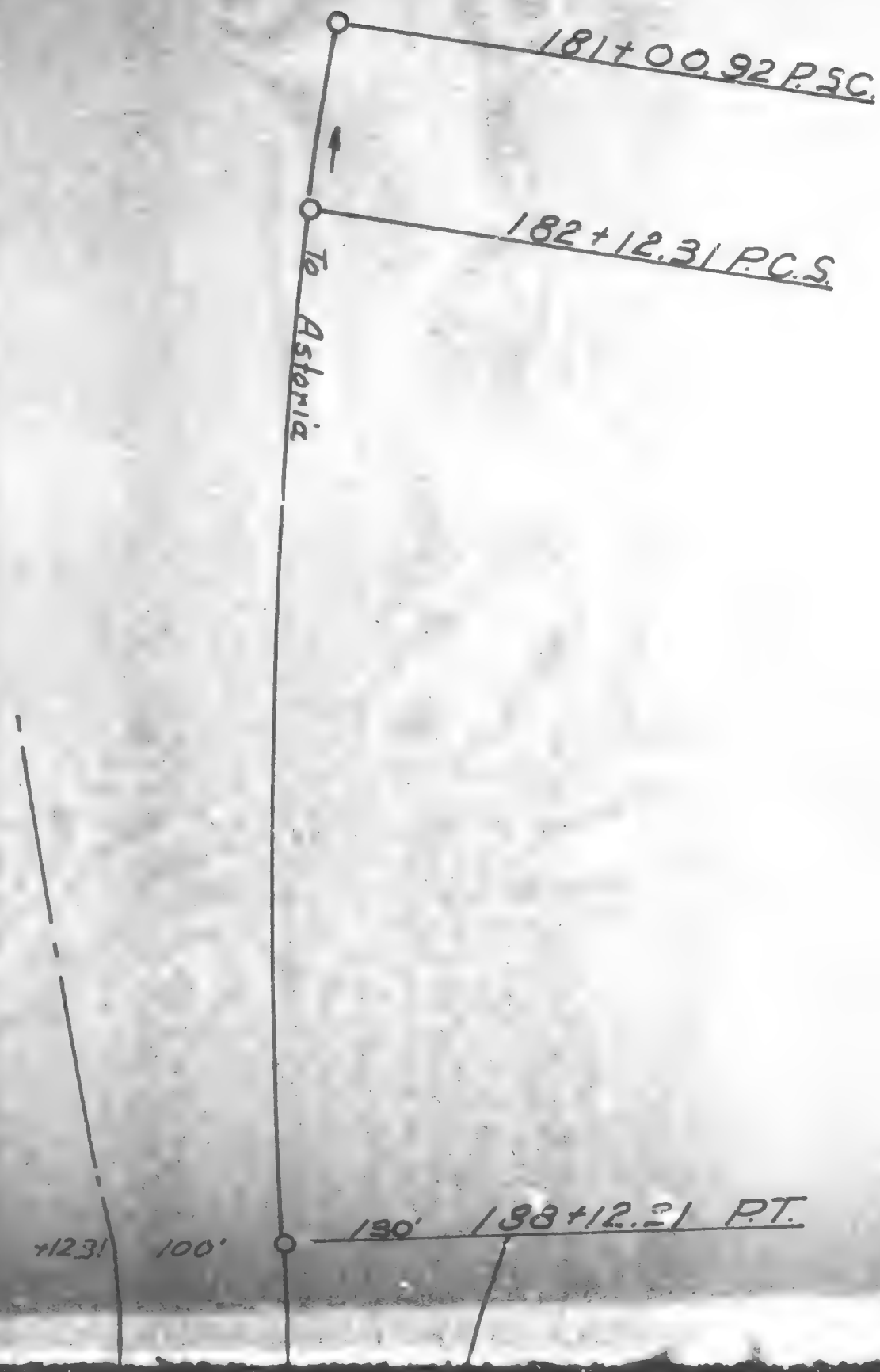
I would appreciate a letter from you telling us what you have in mind so that we may know how to proceed.

Very truly yours,

Norman Cooper
State Highway Engineer

HC:fm

cc R. L. Porter
V. B. Kinboe
Victor D. Wolfe
F. D. Morgan
R. D. Asberry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182+12.31 P.C.S.
To Astoria
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100'
130'
138+12.31 P.T.

+1231 100' 190' 188+12.31 P.T.

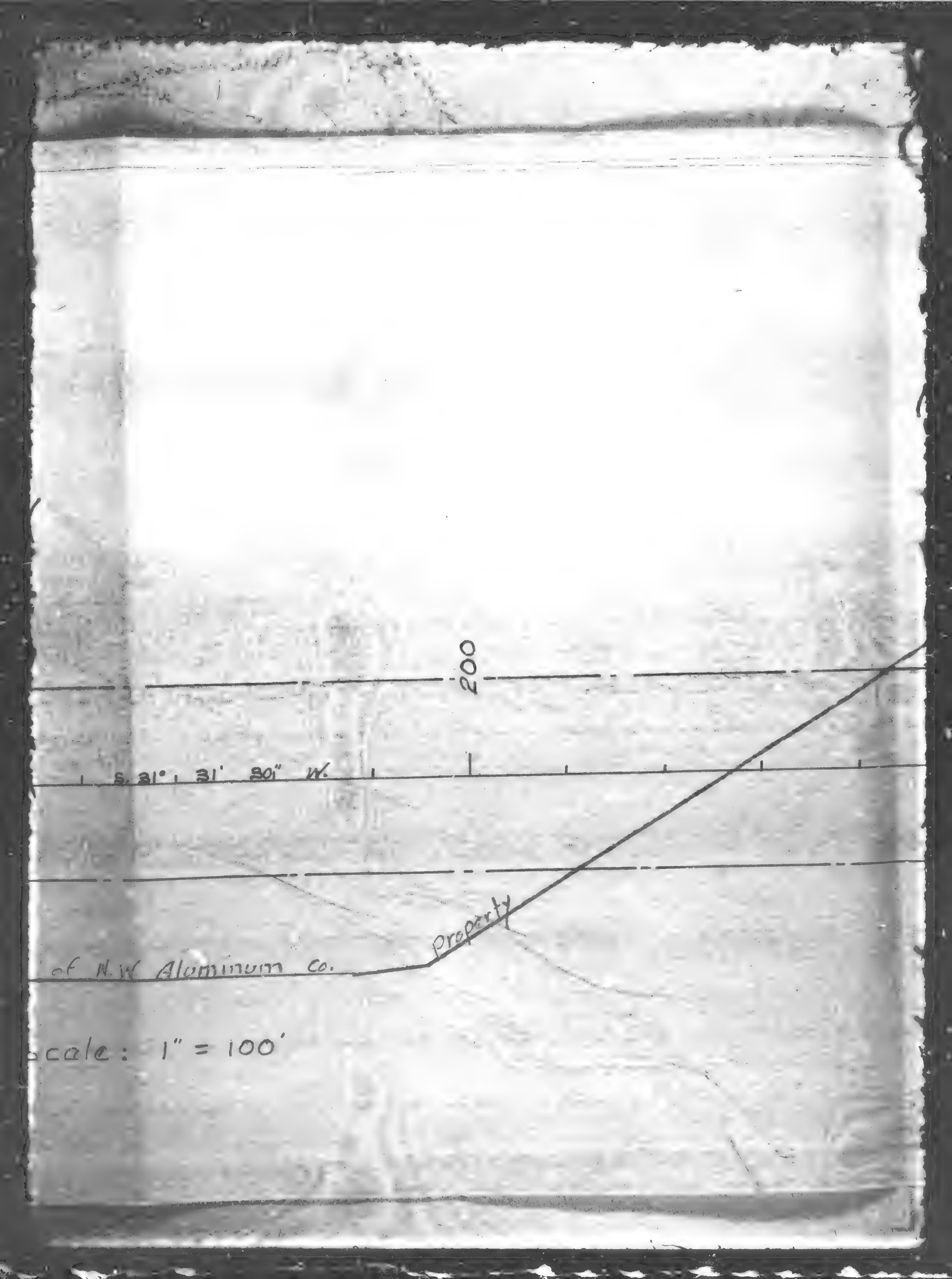
100' +00

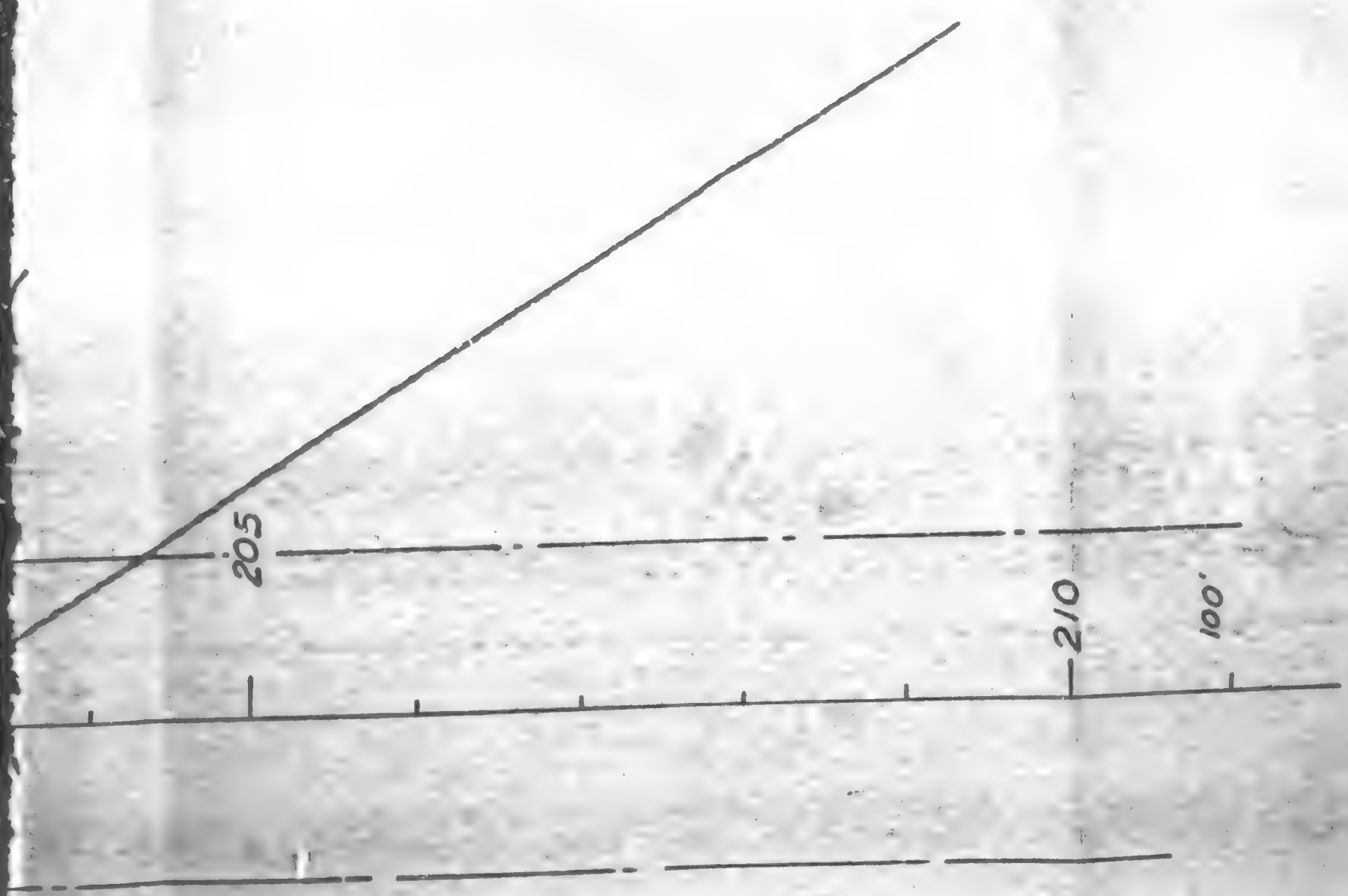
190

195

Approx Boundry of N.W.

Scale:


200
S. 31° 31' 30" W.
Property
of N.W Aluminum Co.
Scale: 1" = 100'



Sketch Map

N.W. Aluminum Co. Plant Site

S. Unit Astoria ~ Camp Rilea

Oregon Coast Hwy.

RECEIVED
NOV 9 - 1967
FOR FILING

8949

November 8, 1967

AIRMAIL

Mr. Richard E. Peck
Executive Vice President
Northwest Aluminum Company, Inc.
26 Broadway
New York, New York 10004

Dear Mr. Peck:

Thank you for your letter of October 4 transmitting a copy of the preliminary plan for your proposed Clatsop County project.

The proposed road as shown on your plan varies slightly from the projection we have made; however, there appears to be adequate room around the space required for extending pot lines. The 250 feet of right-of-way is approximate only and will be adjusted when a field survey is made.

Although we are well along in the planning and purchase of right-of-way for the original line in this area, we can consider the alternate alignment if you would be willing to pay the difference in cost, plus reimbursement of the money already spent.

The additional cost involved would be approximately $50,000 for construction and $35,000 for right-of-way. We have spent approximately $30,000 for survey and design costs and $25,000 for the purchase of right-of-way on the original line. The total of these amounts is $130,000. These figures are approximate only and would be computed closer if you are interested in such a proposal.

Your comments will be welcome.

Very truly yours,

Forrest Cooper
State Highway Engineer

cc R. L. Porter
F. B. Klaboe
Victor D. Wolfe
F. D. Morgan
R. D. Ashurry

DLT:fw fn

NORTHWEST ALUMINUM COMPANY, INC.
26 BROADWAY
NEW YORK, N. Y. 10004

AREA CODE 212
425-3535

CABLE ADDRESS
"THEQUITY-NEW YORK"

October 4, 1967

Routing
Morgan
Decker
Bond
Barbee
Walker
Olbon
Peasa
Morelock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
OCT 9 1967
CONSTRUCTION
DIVISION

Mr. D. J. Barbee
Asst. Construction Engineer
State of Oregon Highway Department
Salem 10, Oregon

Dear Mr. Barbee:

Enclosed is drawing No. 000-3803 prepared by Parsons-Jurden Corporation, which shows the proposed plot plan of the Northwest Aluminum Company facilities on a preliminary basis, including the proposed expansion of the pot lines from 2 to 6 lines. This drawing shows the alternate proposed highway with a 250 ft. right of way. I believe this proposed highway is the alternate which you placed on the plot plan I had with me in your office last September 20th. If this is the proposed alternate right of way for the highway, such alternate highway would be acceptable to us in relationship to the proposed plot plan and proposed space required for expanding the pot lines.

The plot plan does not show an entrance on the south side of the plant from either Dolphin Avenue or the proposed alternate highway. In view of the sizeable number of employees who will be working at this facility I would be hopeful that an entrance on the southwest side of the plot could be made available from the proposed alternate highway.

I will be in Japan for the next two weeks. If you should need any further information, please feel free to contact our consulting engineer, Mr. Joel Morris, Vice President of Clifford S. Strike & Co., 245 Park Avenue, New York, N. Y. 10017, telephone number is (~~321~~ 212) 661-2122.

Upon my return I will be in touch with you.

Very truly yours,

Richard E. Peck

Richard E. Peck
Executive Vice President

REP.rss
encl.

OCT 5 - 1967

Final
Mtd
8949

October 4, 1967

Mr. K. F. Hoy, Chief Engineer
Spokane, Portland and Seattle
Railway Company
1101 N. W. Hoyt Street
Portland, Oregon 97207

Dear Mr. Hoy:

This is in response to your September 29 inquiry concerning the Northwest Aluminum Company's prospective development at Warrenton and your need for information on future highway location in the area.

Enclosed is an uncontrolled mosaic on which the Aluminum Company tract is indicated in green; also shown is the presently proposed location for the Oregon Coast Highway which is colored in orange. In addition, a proposed adjustment in this location is indicated in blue. It is not known at this time whether the orange location, which has been adopted by the Highway Commission and the right-of-way largely acquired, or the blue alternate will eventually be constructed. This will depend upon negotiations with the Aluminum Company and action by the State Highway Commission.

We hope these data, while not definite, may be of some help to you in studying track layouts. If there is anything further you feel we could supply, please do not hesitate to call on us.

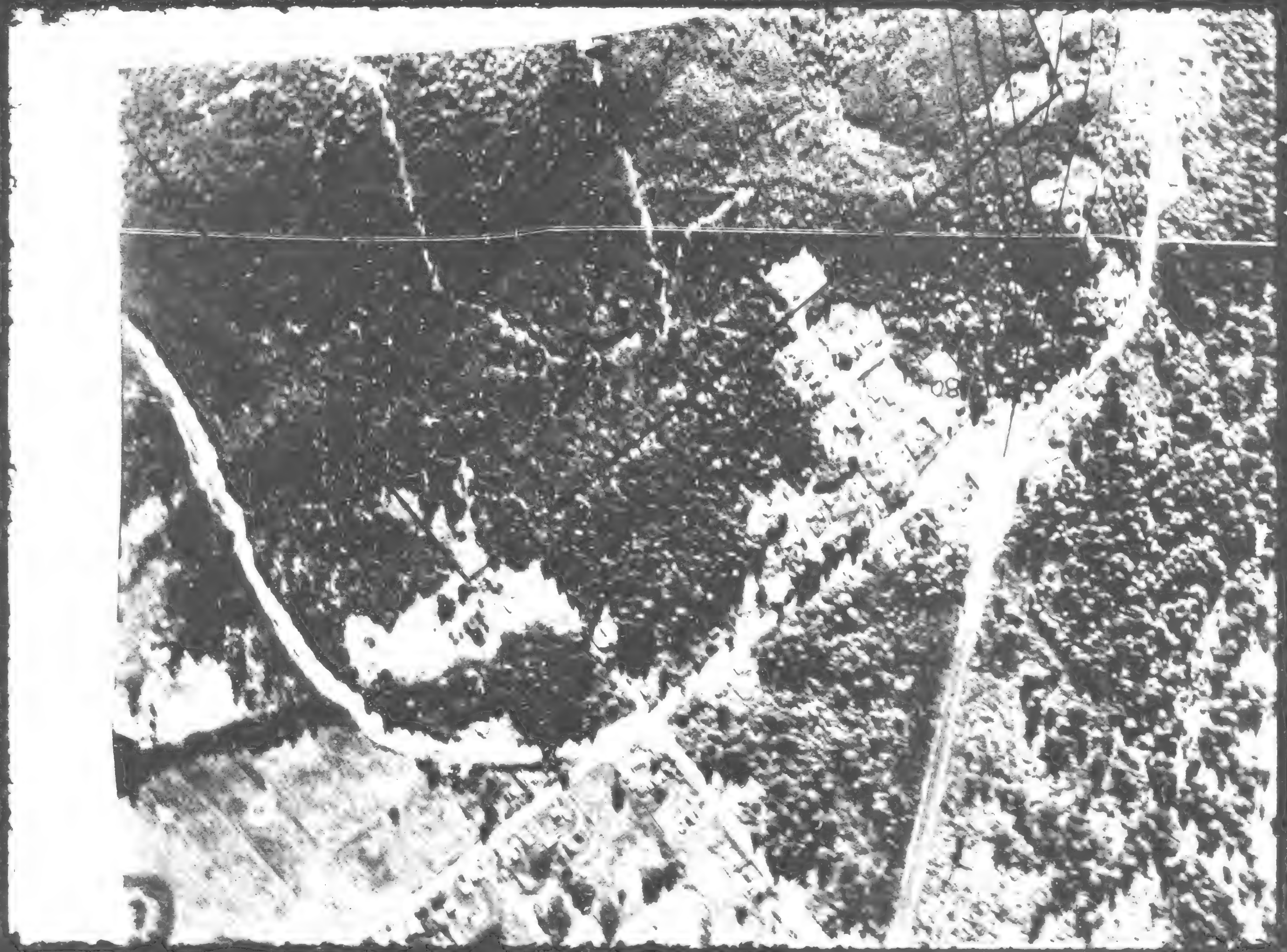
Very truly yours,

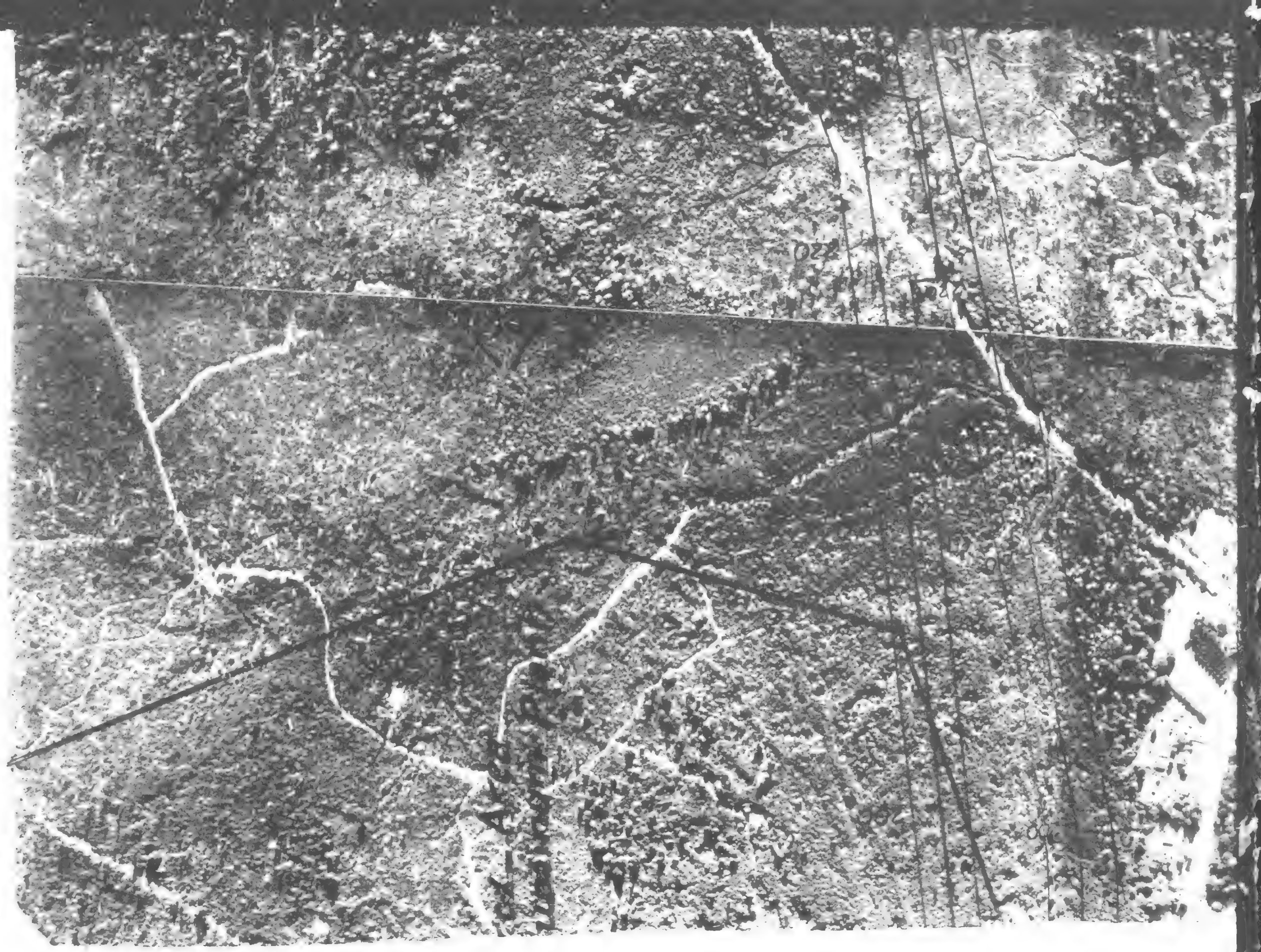
Forrest Cooper
State Highway Engineer

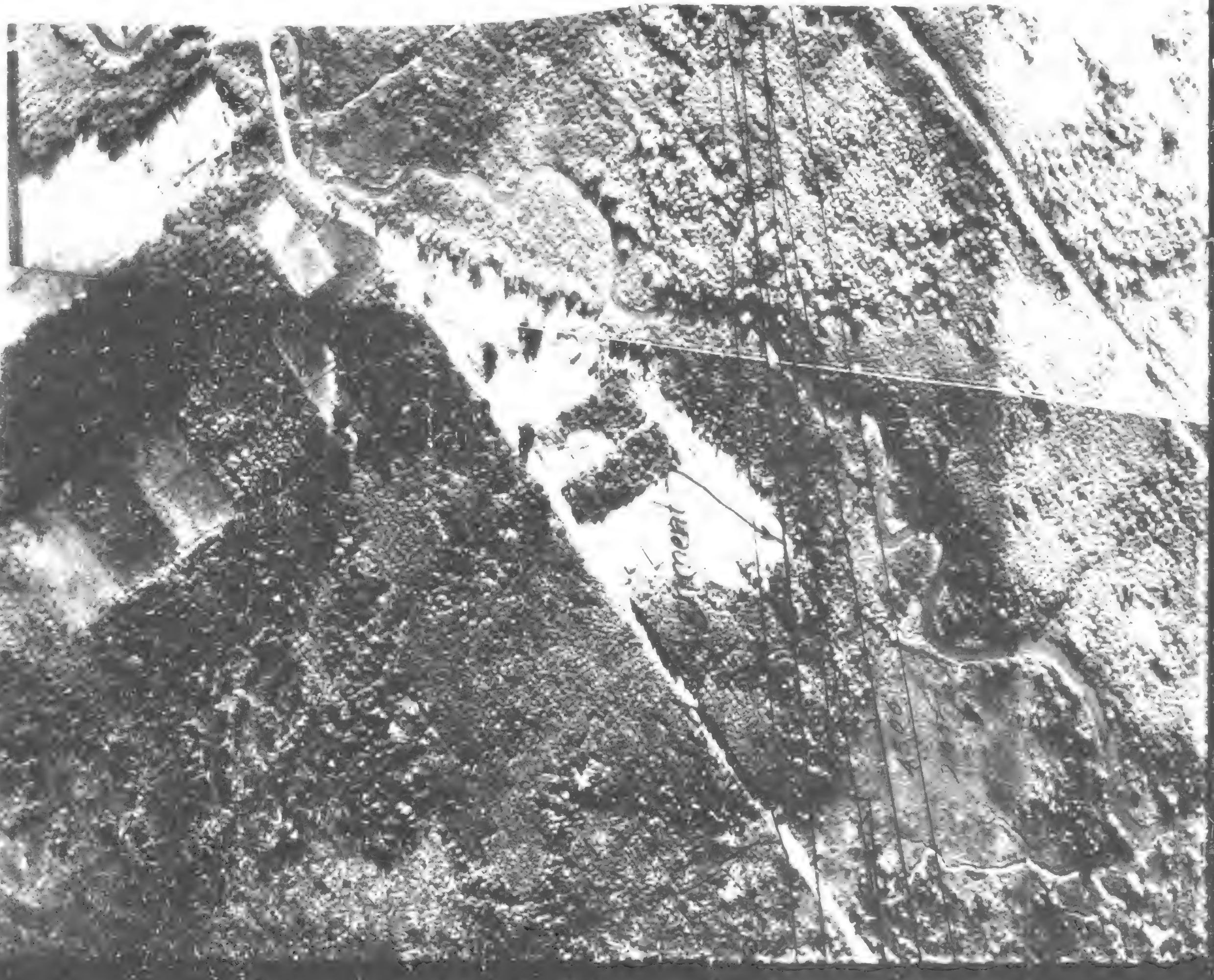
Enc.

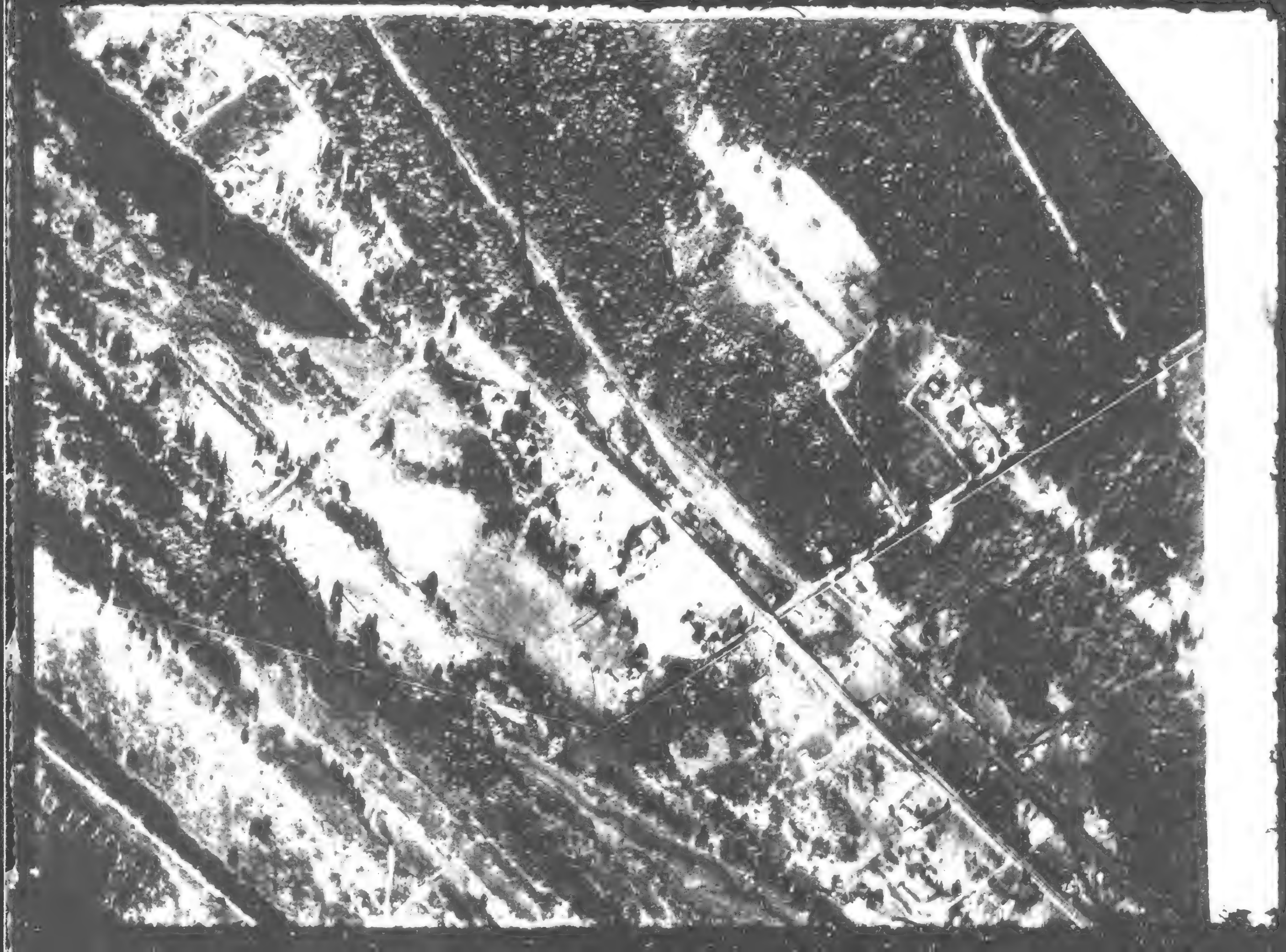
cc R. L. Porter
P. S. Klabee
Victor D. Wolfe
R. D. Asburry

RLP:ms fn









OREGON STATE HIGHWAY DEPARTMENT

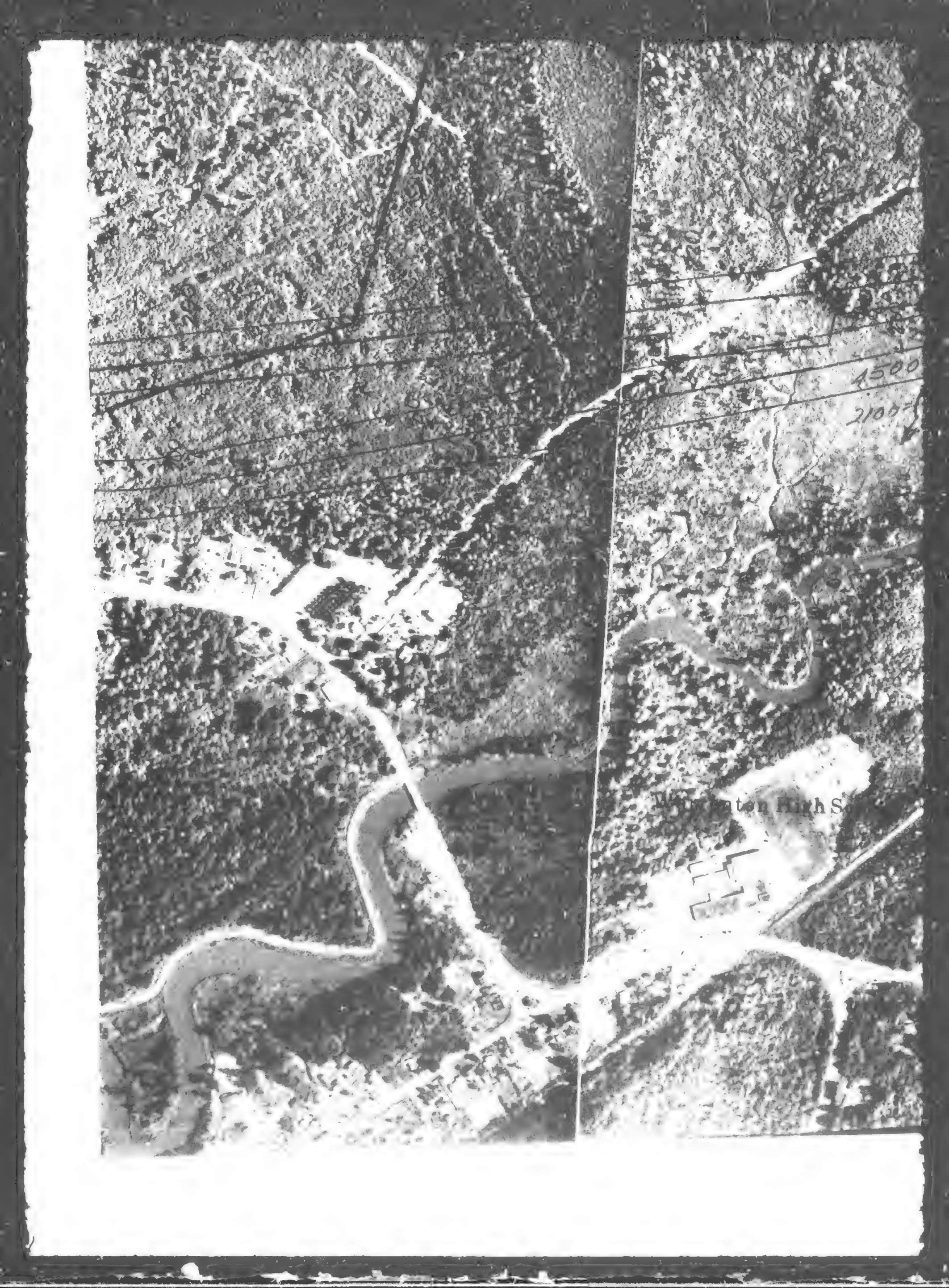
ASTORIA - CAMP RILEA

Oregon Coast Highway

UNCONTROLLED MOSAIC

APPROX. SCALE 1" = 1000'

AERIAL PHOTOGRAPHY OF JULY 1965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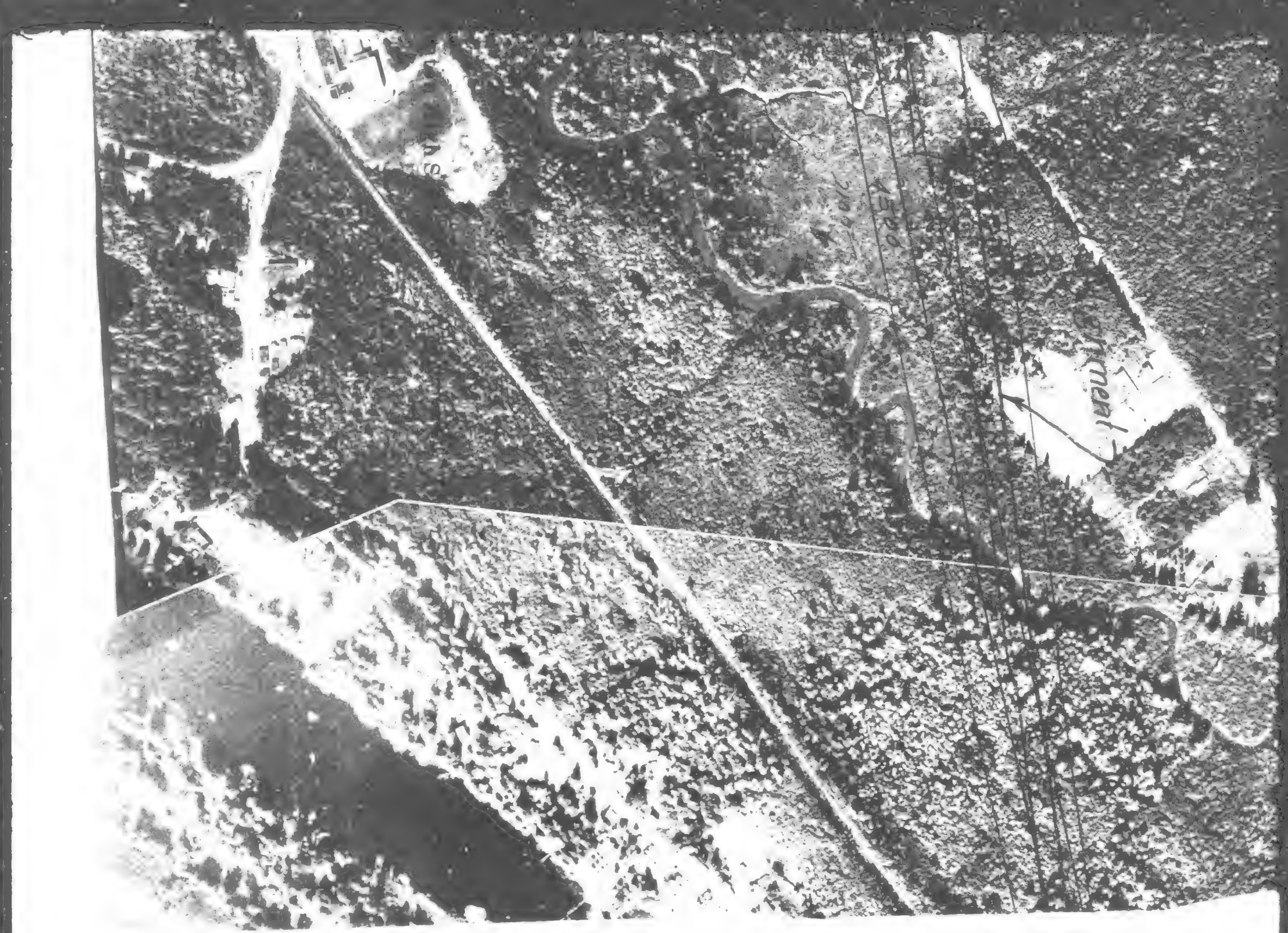
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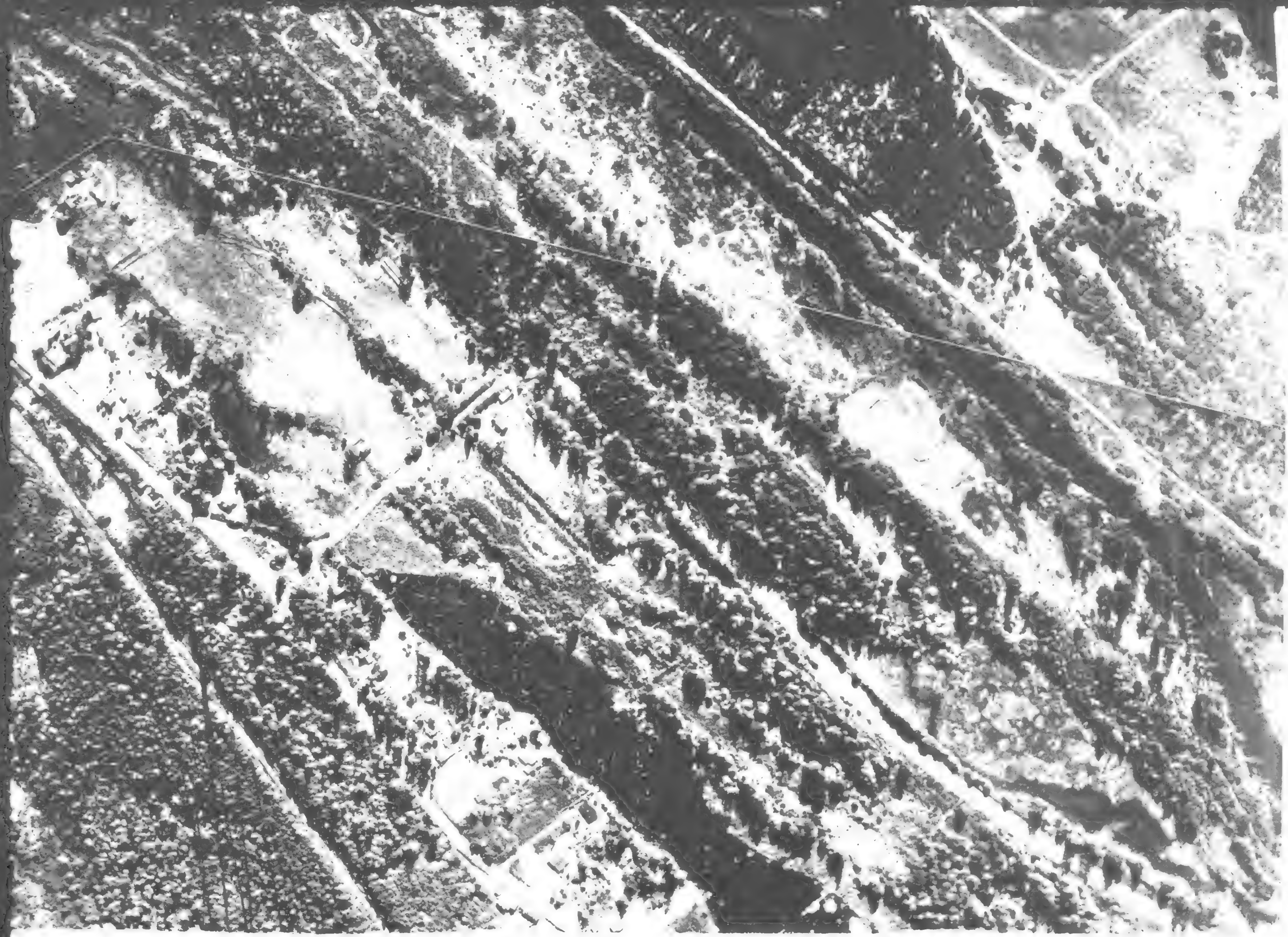

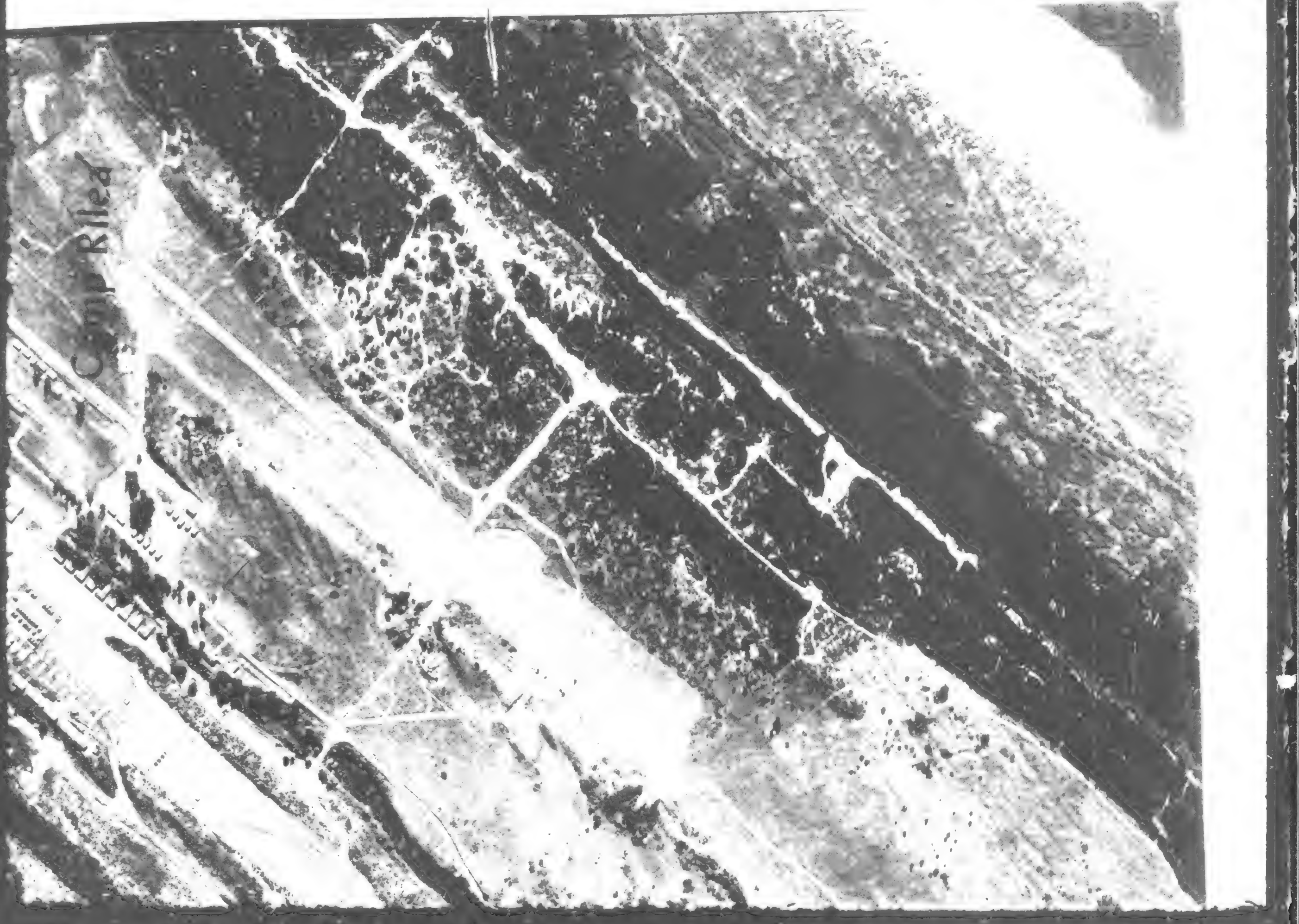
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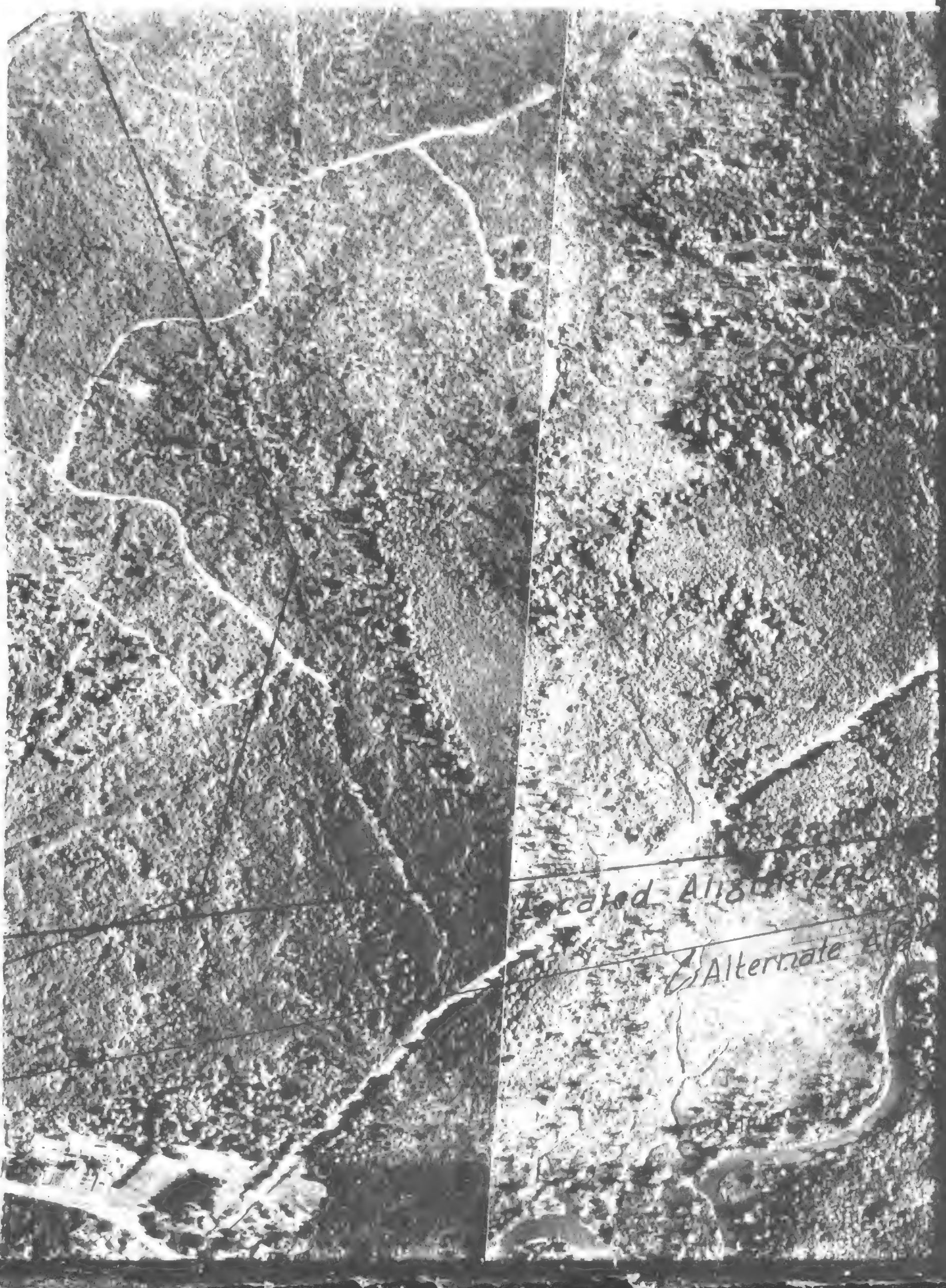
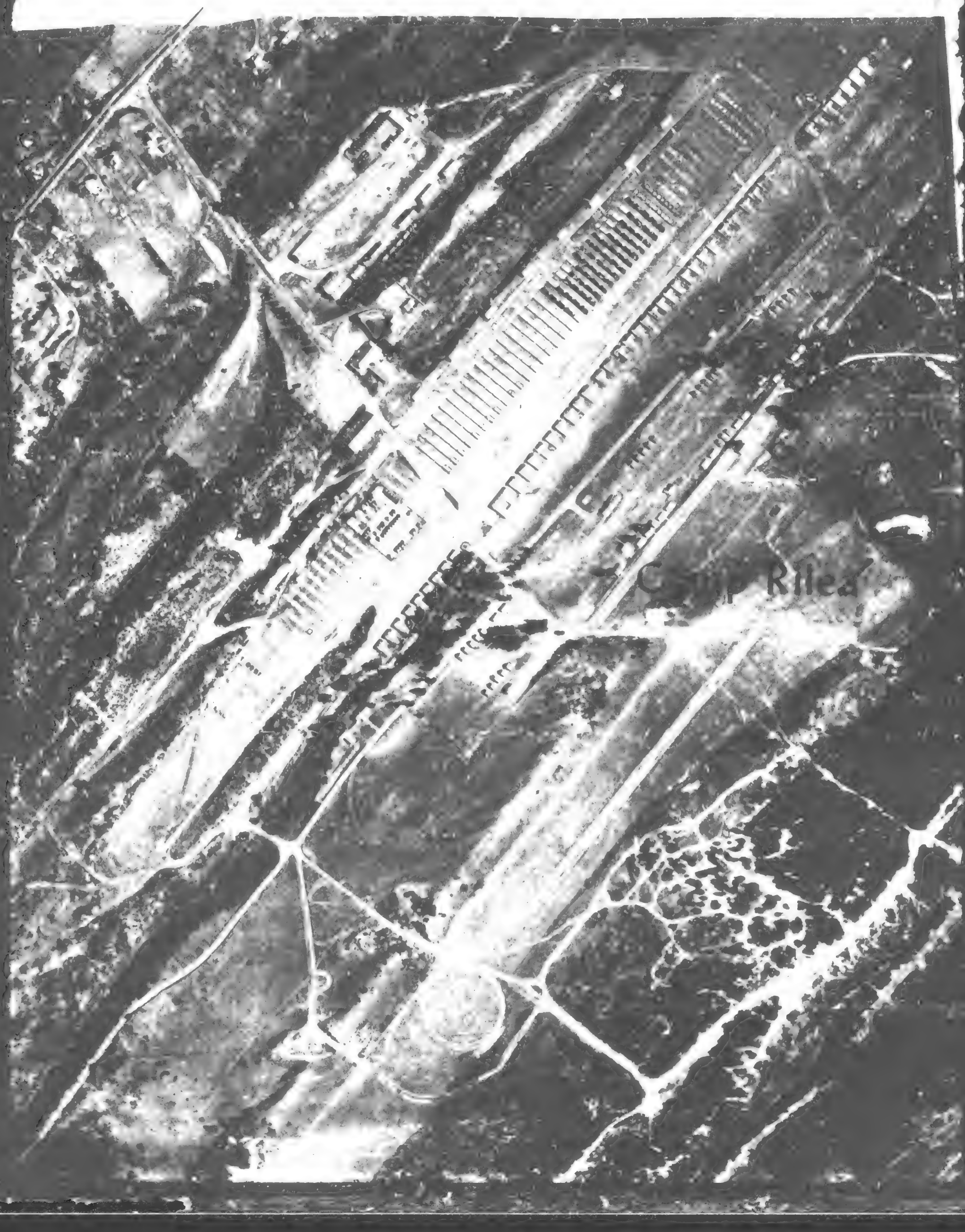

Alternate


Camp Riley

OREGON STATE HIGHWAY DEPARTMENT

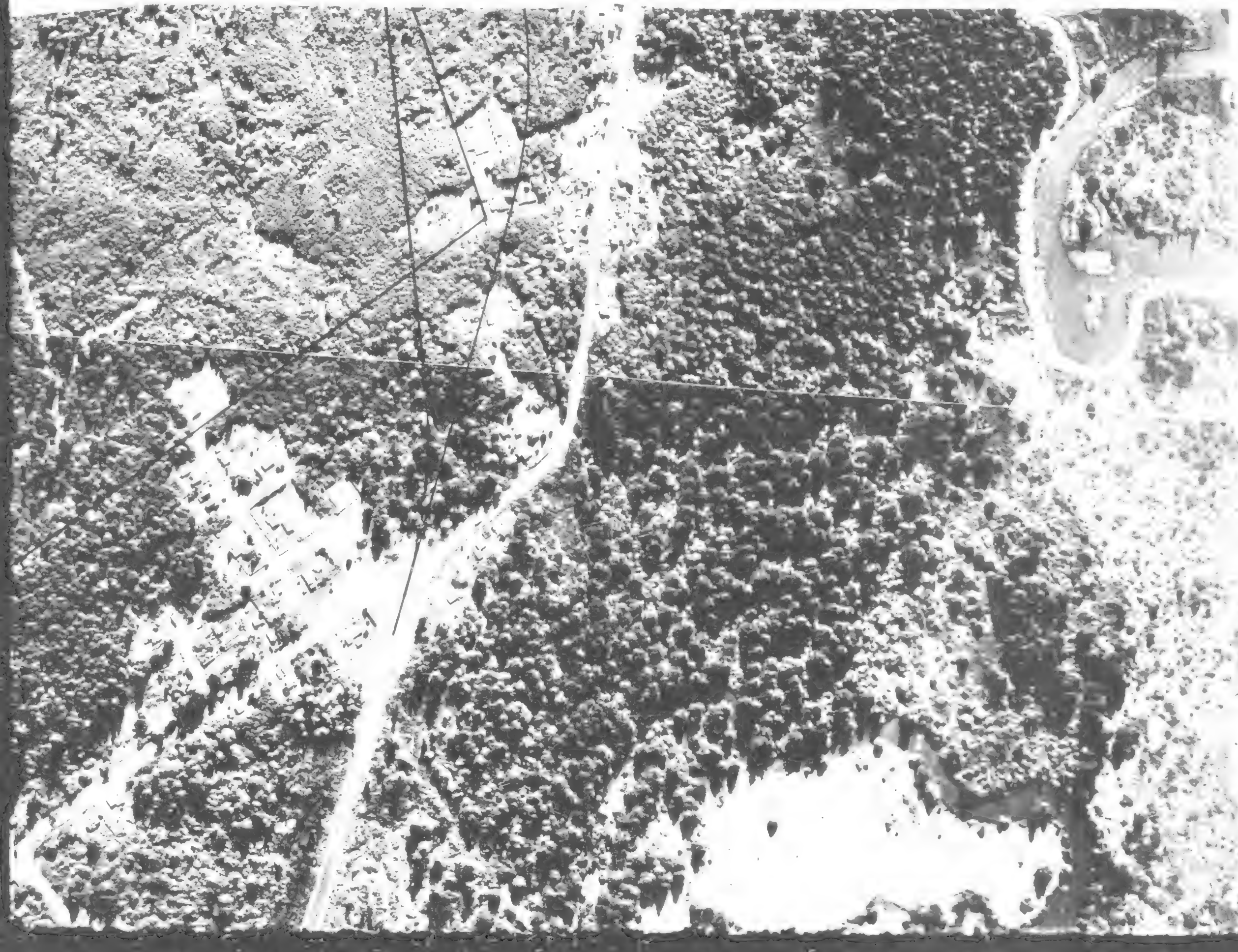
ASTORIA-CAMP RILEA
Oregon Coast Highway

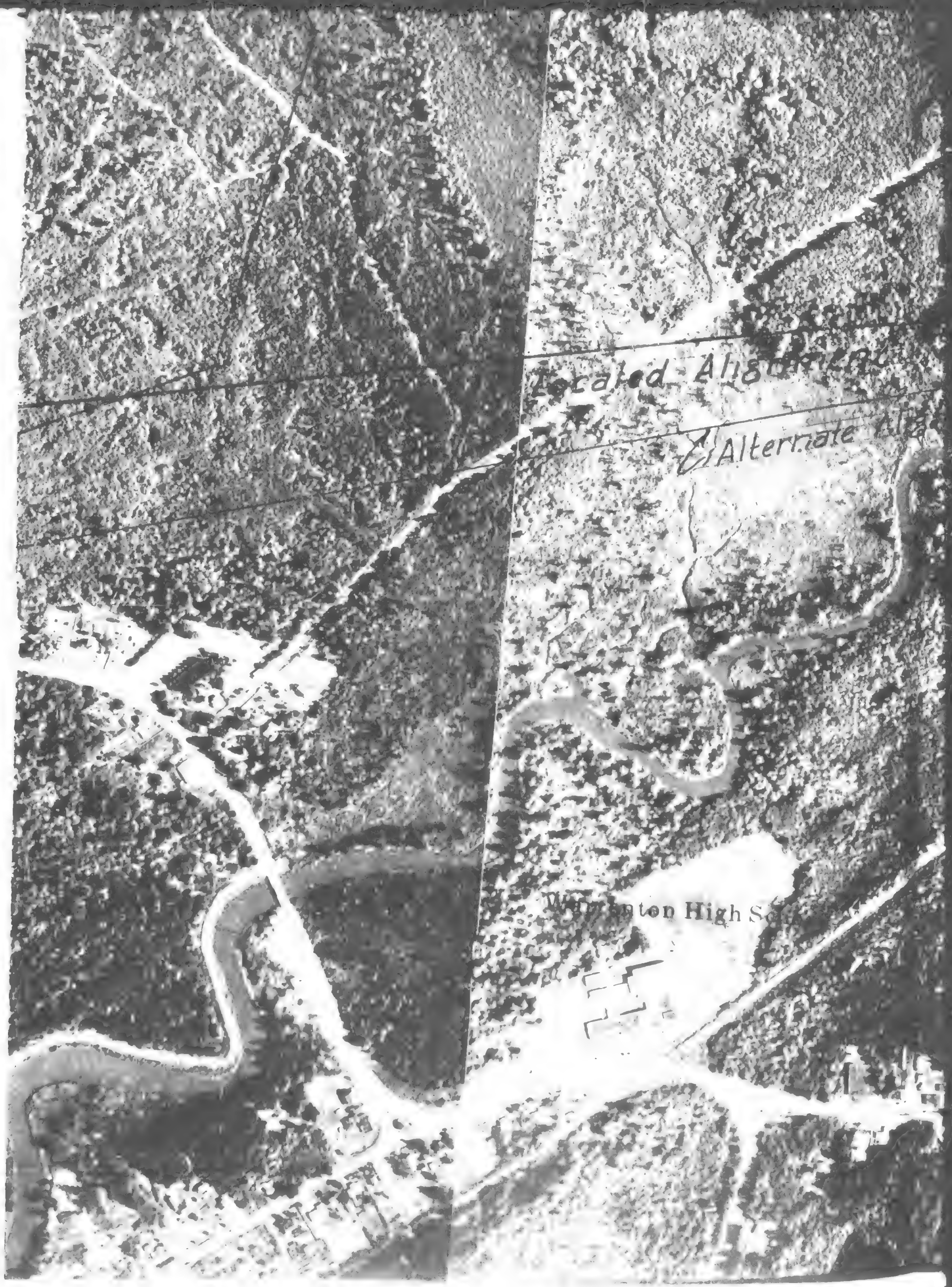
UNCONTROLLED MOSAIC

APPROX. SCALE: 1" = 400'

AERIAL PHOTOGRAPHY OF SEPT., 1965

9-11-65

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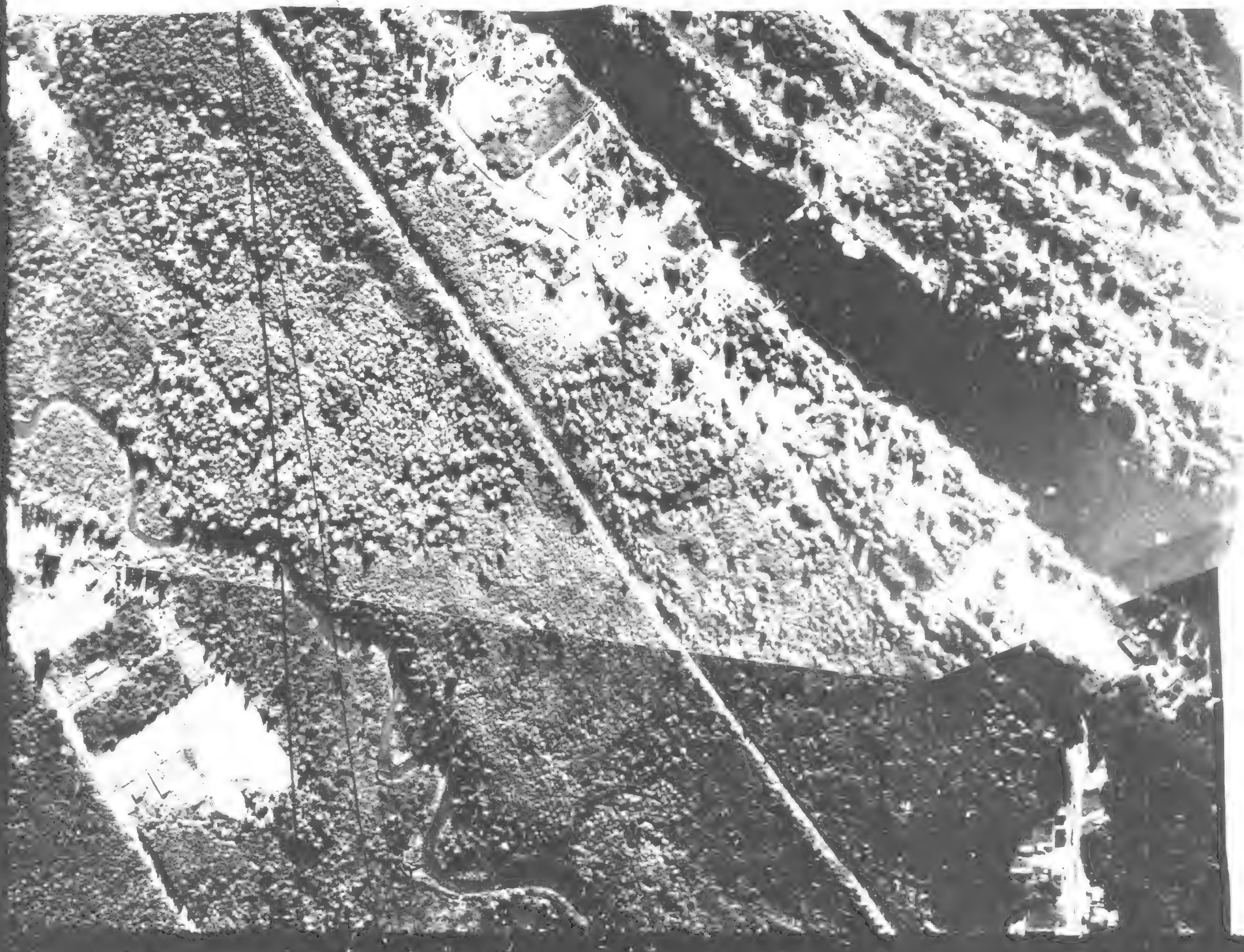
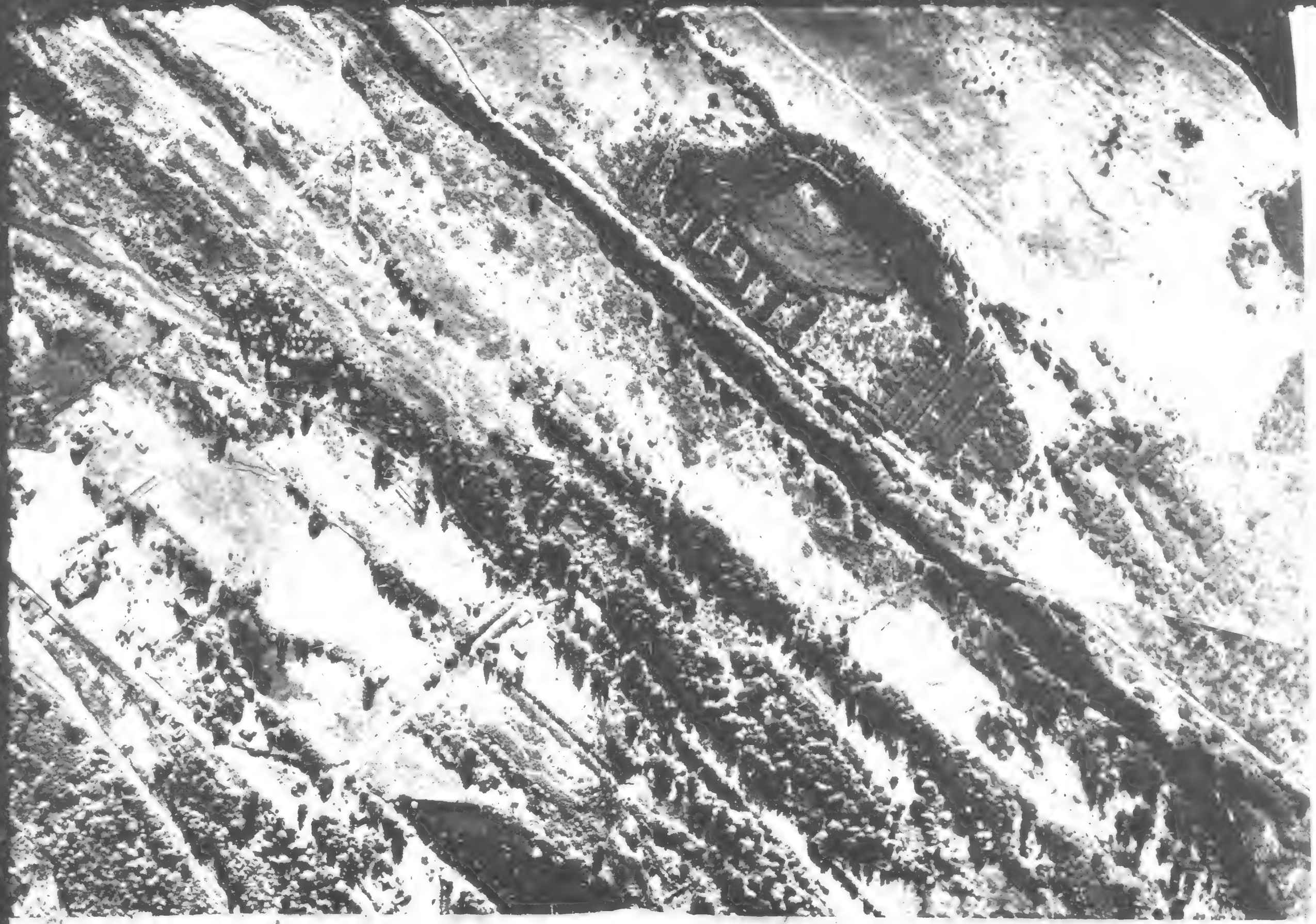
Alternate
Washington High S





Camp Riley

FORM 1812

SPOKANE, PORTLAND AND SEATTLE RAILWAY COMPANY

OREGON TRUNK RAILWAY
OREGON ELECTRIC RAILWAY COMPANY
RUTH REALTY CO.

H. F. MOY.
SECRETARY
CHIEF ENGINEER

OFFICE OF CHIEF ENGINEER

1101 N. W. HOYT STREET
PORTLAND, OREGON 97207

September 29, 1967

Personal

Mr. Forrest Cooper
State Highway Engineer
Salem, Oregon 97310

Dear Mr. Cooper:

As you probably are aware the Northwest Aluminum Co. is going to erect a plant at Warrenton, Oregon. Their operation will require considerable trackage. The main lead will possibly leave the S.P.& S. Astoria Line immediately west of the Warrenton High School.

Members of your department have informed me from time to time that there will be a new four lane highway constructed in the immediate area to connect up with the new section of highway that was recently completed across Young's Bay. This is to tie into plans originally presented to this office for crossing Astoria Line at Camp Clatsop.

Northwest Aluminum Co.'s engineering firm, Parsons Jurden Corporation of New York, are quite anxious to prepare track layouts for this plant site. Until such time as I have something definite from the Oregon State Highway Commission on location of your new highway through the immediate area it is almost impossible to work with this concern on trackage

to serve their new development. I understand that Mr. Glen Jackson, Chairman of the Oregon State Highway Commission, has been quite active in possible highway locations in this area, and that due to this your people have not been able to give me any information to date on this matter.

If it is at all possible I would certainly appreciate your furnishing me the information I need so that we can work with Northwest Aluminum Co. as well as Pacific Power & Light Co. in developing trackage to serve this area.

Very truly yours

W. J. Moy

Chief Engineer

HFM-c

RECEIVED
OCT 2 1967
OFFICE OF
STATE HIGHWAY ENGINEER

FORM [illegible] 7-66 8949

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
[redacted]
DAVID B. SIMPSON, MEMBER
PORTLAND

Fred A. Hill, Member
Helix

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

August 18, 1967

Mr. Raymond M. Kell
Kell and Alterman
Attorneys at Law
1107 Commonwealth Building
Portland, Oregon 97204

Dear Sir:

Reply is made to your letter of August 9, 1967, referring to certain ground clearing performed by Northwest Aluminum Company near Warrenton, Oregon. As requested, I submit herewith a sketch map showing the approximate area cleared which lies within right of way acquired for the South Unit, Astoria-Camp Rilea Section of the Oregon Coast Highway.

This should help your company regarding my request for information as to your plans to develop this area adjacent to State-owned right of way.

May we hear from you when your plans for this area become definitely developed.

Very truly yours,

Forrest Cooper
State Highway Engineer

By F. D. Morgan
F. D. Morgan
Construction Engineer

RECEIVED
AUG 18 1967
OFFICE OF
STATE HIGHWAY ENGINEER

NOTED
FORREST COOPER

NOTED
F. B. KLABOE

FDM:fw
Enc.
bc F. B. Klaboe
R. D. Asburry

REFERRED TO
(1) [illegible] (Info.)
By Asst. State Hwy. Engr.
(2) Porter

OREGON COAST HIGHWAY
AVE
175°00'92" Pt
S 52°52' W
JETTY
170
15

600.5p
S=9.00
D=0.5
3°C.L.
R=21°20'30"
T=661.09'
S=
D=
Clatsop Co.
151-609
132-92
210-159
179-323
W. Platila
91-197
Nehsel
8-521
0.92 P.C.C.
12.31 P.C.S.

T. 8 N., R. 10 W. W.

8B-26-20

E 1,136,000

N 924,000

600' SP.
9.00'
0.5

J. Bosshart
214-470

A. A. Beatty
182-285

Pacific Power & Light Co.
282-274

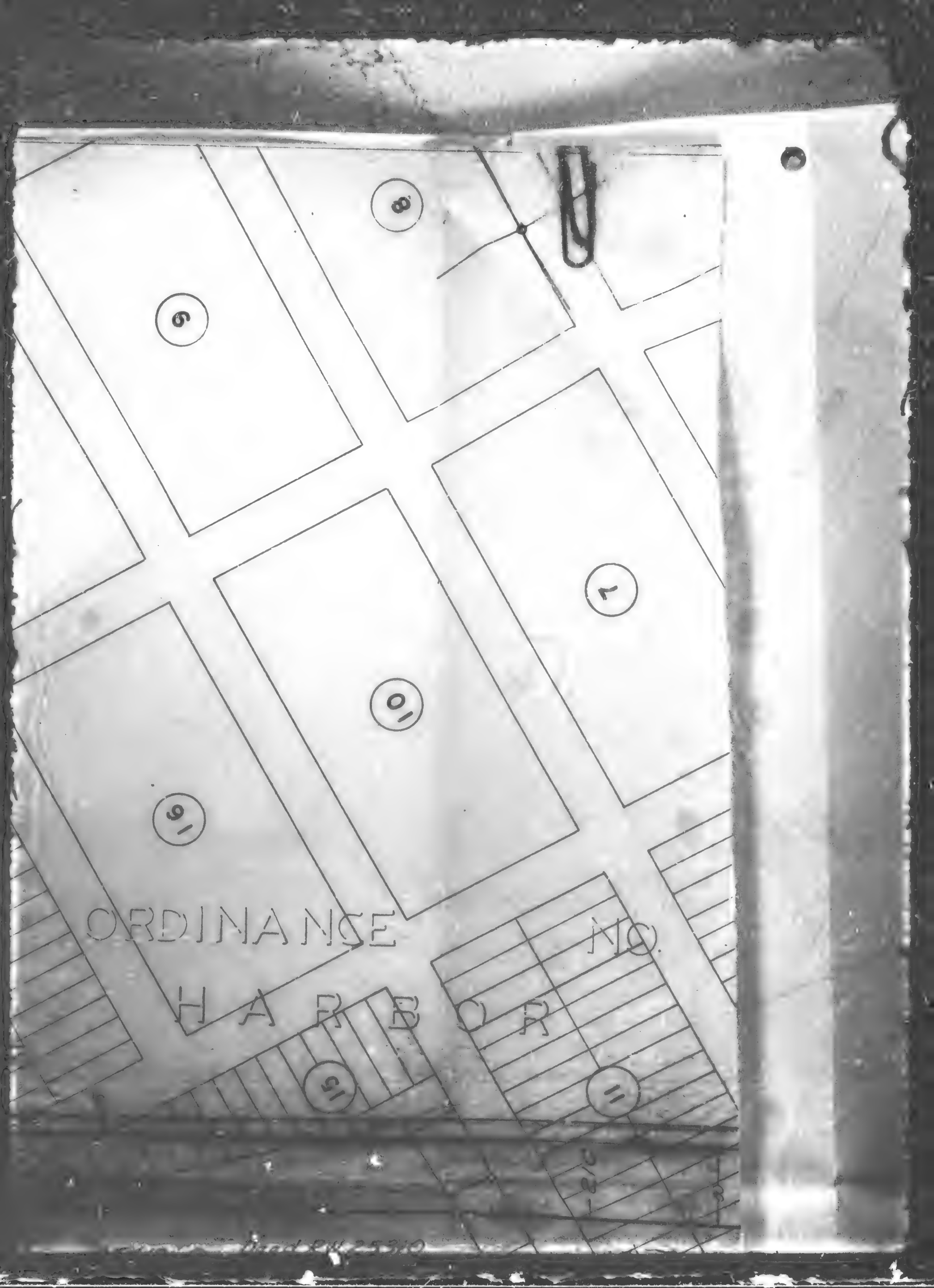
30

N

N., R. 10 W. W.M.

8B-26-20

8
6
11
10
9
7
6
ORDINANCE
HARBOR
12
35419
Deed RW 2530
272-517


8
6
10
7
9
ORDINANCE
HARBOR
NO.
12
11

JETT

S.E.

PLACE

IREDALE

S.E.

S.E.

S.E.

HERON

South Unit
Astoria – Camp Rilea
Ore Coast Hwy.

Deed RK 25310
Clatsop Co.
162-154
121-113
174-444
272-517
151-600
210-159
137-497
121-113
137-497
121-113
AVE
SEE 6B-8-10

POC

2.9 Ac. M.

35423

1.5 Ac. M.

200-497
137-497

Clatsop Co.

151-609

H. Hunley 271-282

H. Schuettge 62-463

J.&G. Hill 275-600

Gilbert 17-207

Stevens 258-

1

July 196

35423

S 23

28

41

Stevens
33-125

P.P. 41
285-5

1

2

15

11

705

Seaside

35419 ②
10.3 Ac.

Deed RW 25310
272-517

28-27

1.P.

15

11

210'

Seaside

35419 ② Deed RW 25310
10.3 Ac. 272-517

T.P.

28-27

8949

KELL & ALTERMAN
ATTORNEYS AT LAW
1107 COMMONWEALTH BUILDING
PORTLAND, OREGON 97204

RAYMOND M. KELL
CLIFFORD B. ALTERMAN

223-6158

August 9, 1967

State Highway Engineer
State Highway Department
Salem, Oregon 97310

Attention: F. D. Morgan
Construction Engineer

Dear Mr. Morgan:

Thank you for your letter of August 7, 1967, with reference to the Northwest Aluminum Company clearing. My partner, Mr. Alterman, has been handling this phase of the work for Northwest Aluminum. He is out of the office on vacation until Monday, August 14. I will have him get in touch with you as soon as he returns.

If you have a map or sketch that shows the State Highway Department right-of-way that was cleared, it would be helpful if you could furnish us with a copy.

Very truly yours,

Raymond Kell

Raymond M. Kell

RMK:dj

Routing
Morgan ✓✓✓
Decker
Bond
Berlee
Walker
Glenn
Swan
Poso ✓
Morelock
Trout
Scott
Wills
Litchfield
Olson

RECEIVED
AUG 11 1967
CONSTRUCTION
DIVISION

FORM E-123X 3/66 8949

COMMISSIONERS
GLENN L. JACKSON, CHAIRMAN
MEDFORD
KENNETH N. FRIDLEY, MEMBER
WASCO
DAVID B. SIMPSON, MEMBER
PORTLAND

STATE OF OREGON
STATE HIGHWAY DEPARTMENT
SALEM 97310

August 7, 1967

Mr. Cliff Alterman
1107 Commonwealth Building
Portland, Oregon

R. L. [illegible]

Dear Mr. Alterman:

An effort has been made by the Oregon State Highway Department to contact a representative of the Northwest Aluminum Company, Inc. at Astoria, Oregon. We were unable to make this contact, but did determine that you and a Mr. Raymond Keil were representing this company.

A recent inspection of the Northwest Aluminum Company, Inc. property near Warrenton, Oregon shows that in clearing company property that a certain portion of State Highway Department right of way was also cleared.

It is requested that a representative of this company either meet with a representative of the State Highway Department to discuss our mutual problems of this area or submit a letter to the State Highway Department stating your plans and wishes regarding your proposed development.

Correspondence may be directed to Mr. F. D. Morgan, Construction Engineer, State Highway Department, Salem, Oregon 97310. The telephone number for the Construction office is 364-2171 Extension 1057.

May we hope to hear from you soon.

Very truly yours,

NOTED
F. B. KLABOE

Forrest Cooper
State Highway Engineer

By F D Morgan
F. D. Morgan
Construction Engineer

FDM:fw
bc F. B. Klaboe - 1861-FBK
Victor D. Wolfe

REFERRED TO
Porter
By Asst. State Hwy. Engr.
Wolfe

RECEIVED
AUG 8 - 1967
OFFICE OF
STATE HIGHWAY ENGINEER

RECEIVED
AUG 8 1967
FOR FILING

8949

BP-23011-784

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
August 4, 1967

To: Memo to the Files

SUBJECT: N. W. Aluminum Co., Inc. Plant
At Astoria
South Unit, Astoria-Camp Rilea Section
Oregon Coast Highway

NOTED
R. L. PORTER

This date, accompanied by Construction Engineer Morgan, endeavored to find out the plans of the Northwest Aluminum Company, Inc., for their plant at Astoria.

Considerable of the area has been cleared off but could find nobody in this area. An office had been set up for the contractor doing the clearing but nobody was present. Contacted Gene Hallaux of the Astoria Chamber of Commerce, who gave me the following information:

There are no representatives of this company in the Astoria area. A representative of the company had talked with Mr. Hallaux recently who said they had no definite plans at the present. They had an engineering firm now working on these plans. Until the engineering firm had done further work and completed plans they would not know just what kind of a plant they would put up or if they would put up a plant at all. The company's name is Northwest Aluminum Company, Inc. Their address is 26 Broadway, New York, New York, zip code #10004. The engineering firm who is doing the engineering work for this project is Parsons-Jurden Corporation of 26 Broadway, New York, New York, or the same as the address of the prime company. The nearest representatives for this company are Cliff Alterman and Raymond Kell, both attorneys of Portland, doing business at 1107 Commonwealth Building, Portland, Oregon, Phone No. 223-6156. Mr. Kell is associated with the Port of Portland.

RECEIVED
AUG 8 - 1967
OFFICE OF
STATE HIGHWAY ENGINEER

REFERRED TO
Porter - Cooper
By Asst. State Hwy. Engr.
Info

RDA:sm
cc F. D. Morgan
Loren Weber
e-F B. Klaboe 8/8/67 sm

We will contact Mr. Kell or
Mr. Alterman

R. D. Asbury
R. D. Asbury
Division Engineer

NOTED
FORREST COOPER

RECEIVED
AUG 8 1967
CONSTRUCTION
DIVISION

Routing

Morgan		Pease	E
Decker		Moralock	
Bond		Trout	
Barbee		Scott	
Walker		Wills	
Glenn		Litchfield	
Swan		Olsen	

8749

FORM E-30 50M 7-64 SP*6229-734

OREGON STATE HIGHWAY DEPARTMENT

INTER-DEPARTMENT CORRESPONDENCE

Salem, Oregon
July 28, 1967

SUBJECT:

To: R. L. Porter
Deputy State Highway Engineer
O F F I C E

REFERRED TO
Klabon
BY DEPUTY STATE HIGHWAY ENGINEER
Suggest this be assigned to Frank Morgan.
FLP

On July 24, I discussed with the Highway Commission relocation of US101 between Warrenton junction and Camp Rilea.

The Commission issued instructions that the Department was to settle this matter with the people who are requesting the facility. As I do not believe that we have any correspondence or requests from this group, please have someone contact them and, in order to get the matter off the ground, request a letter stating their wishes.

Forrest Cooper
State Highway Engineer

FC:fn

cc Victor D. Wolfe

RECEIVED
JUL 10 1967
FOR FILING

8949

1739

July 7, 1967

Mr. Glenn L. Jackson, Chairman
Oregon State Highway Commission
c/o Pacific Power & Light Company
920 S. W. 6th Avenue
Portland, Oregon 97204

Dear Mr. Jackson:

Enclosed is an aerial mosaic on which is depicted in orange the proposed alignment of the so-called South Unit of the Astoria-Camp Rilea Section of the Oregon Coast Highway. This is near Warrenton. On the same mosaic, depicted in blue, is an alternate that will miss the aluminum company development, the outline of which is also shown in orange.

Listed below are the estimated costs involved in changing the location to the alternate. It should be understood that these have been done on a reconnaissance basis and actual additional costs cannot be determined until a field survey is made and a definite design prepared.

(1)	Additional construction costs because of alignment change	$ 60,000
(2)	Preliminary engineering costs (which include survey, bridge and road design)	30,000
(3)	Estimated right-of-way costs	60,000
	Total	$150,000

This total represents the estimated "out of pocket" expense to the Department should the proposed alignment be adjusted.

If there is anything further you need on this matter, please let us know.

Very truly yours,

Forrest Cooper
State Highway Engineer

By

R. L. Porter
Deputy State Highway Engineer

cc Forrest Cooper
F. B. Klaboe
Victor B. Wolfe

RLP:ms
cmc.

File

So. Unit, Astoria - Camp Rilea

Additional Construction Cost because of alignment change brought about by the Aluminum Company site ✓

#60,000

Preliminary Engineering Cost to date (Location & Design) ✓

#46,000 (30,000 for affected segment).

Estimated R/W Cost (original location) ✓

#24,336

R/W Purchased to date

#23,571 leaving #765 yet to acquire ✓

Estimated R/W Cost (alternate location) ✓

#60,000

#250,000

60 000
30000
23571
60000

173,571

RECEIVED
JUL 3 - 1967
FOR FILING

8949

(1759)

Salem, Oregon 97310
July 3, 1967

S. W. Unit
Astoria-Camp Rilea

Mr. F. D. Morgan
Construction Engineer
B U I L D I N G

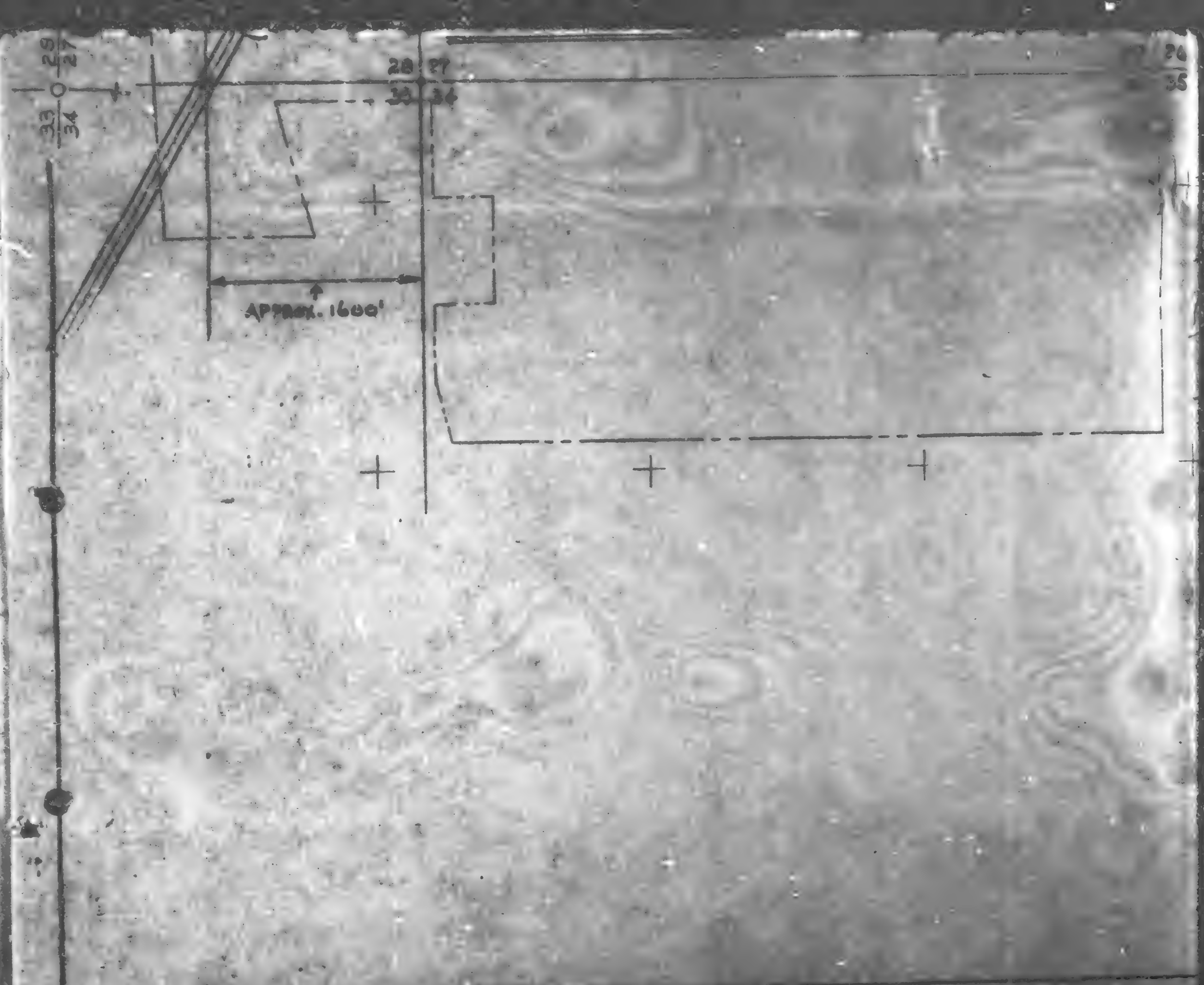
Several days ago I handed you a copy of a plan proposed by Northwest Aluminum Company, Inc. This plan entailed a drastic revision of our location in this vicinity. You were asked to estimate the cost of the plan and to work up alternates on several meanies from which we could secure fair right-of-way values.

Please have this information to me prior to July 5.

F. E. Kinbee
Assistant State Highway Engineer

FEK:arb

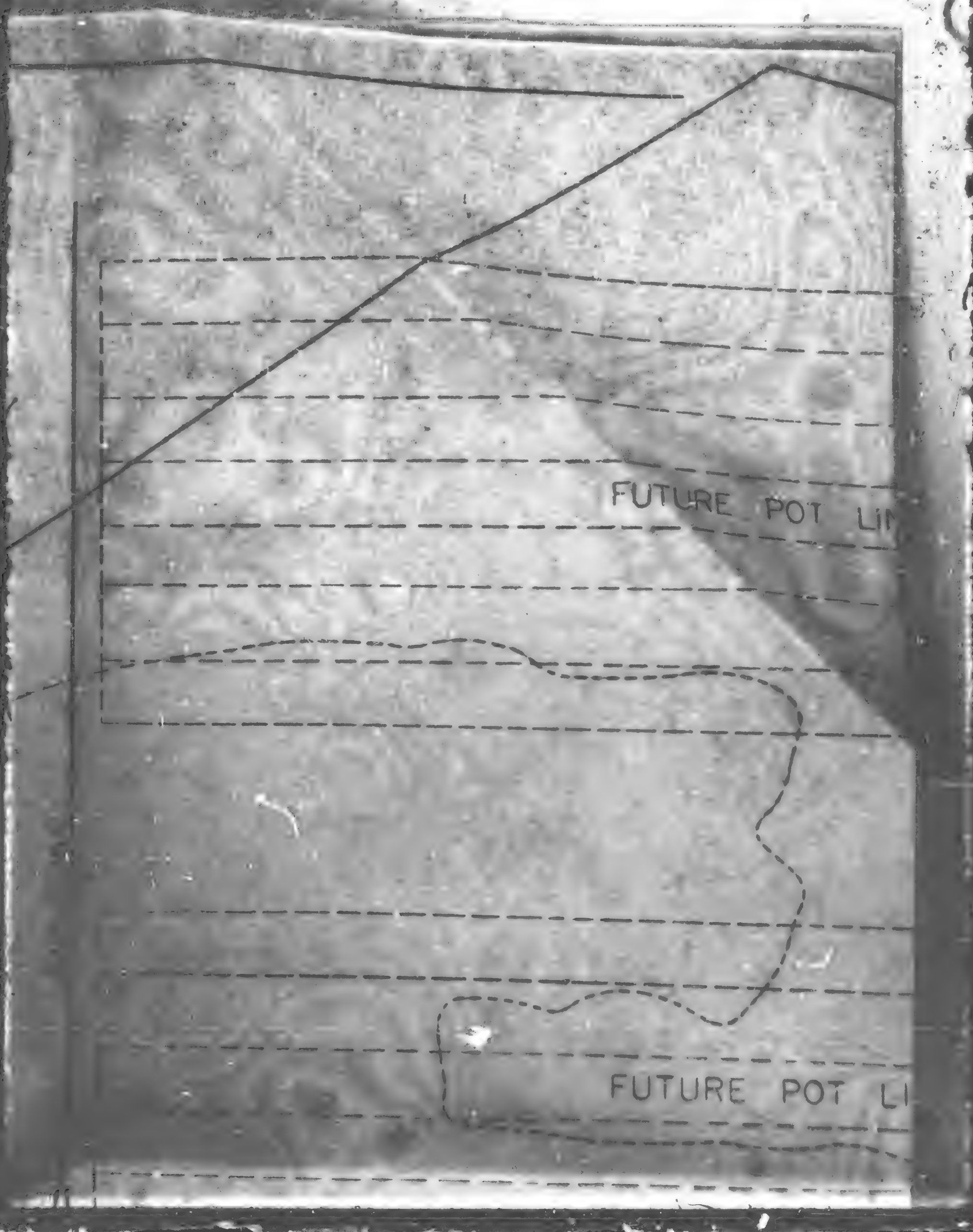
cc: Victor D. Wolfe


28
27
33
34
APPROX. 1600'

N
SUGGESTED HIGHWAY LOCATION

APPROX. 1250'

RAILROAD

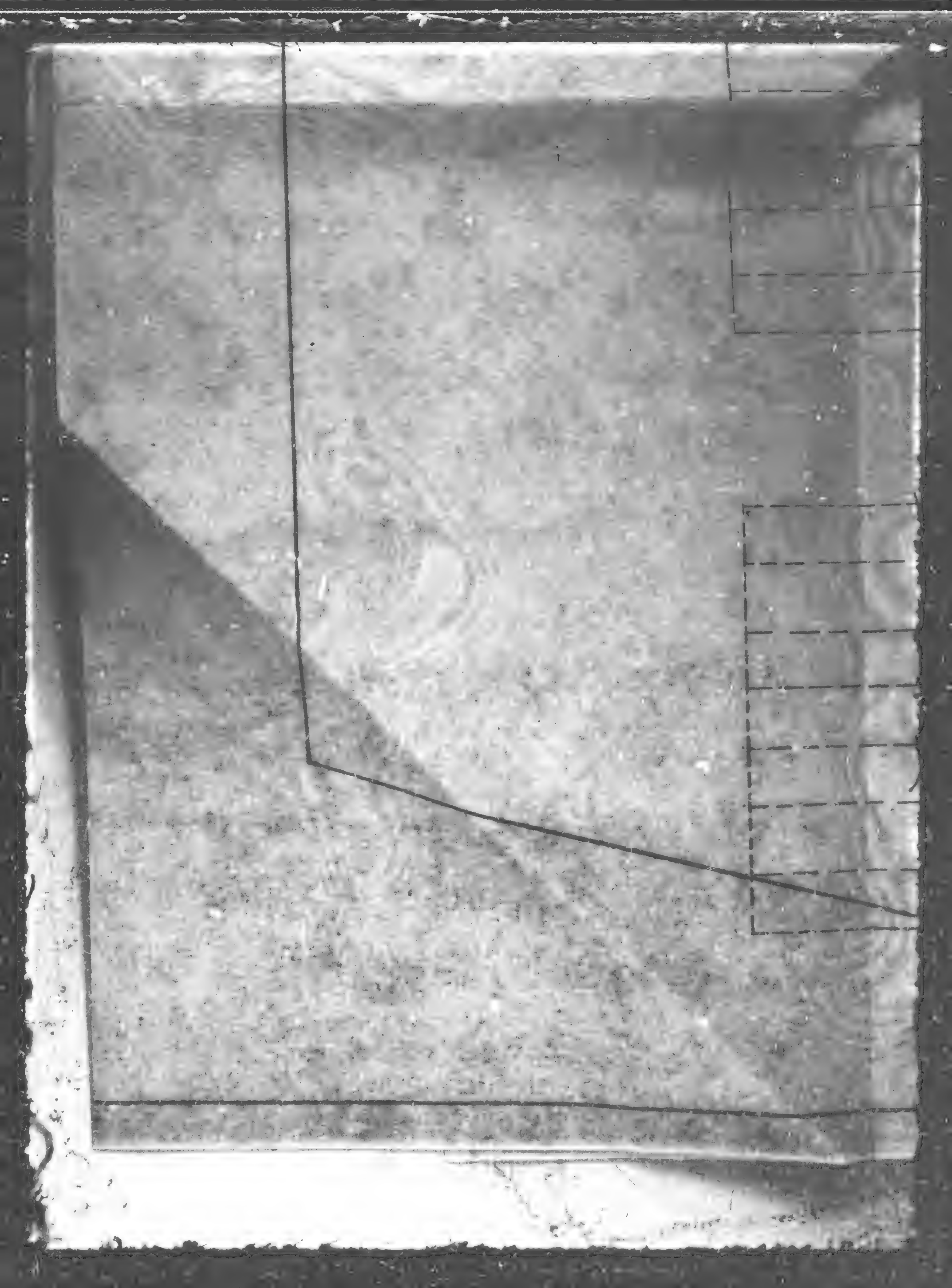

FUTURE POT LI
FUTURE POT LI

APPROX. 1550'

IE BLDG. NO. 5 & 6

.E BLDG. NO. 3 & 4

50



28
27
21
22

PLOT

SUGGESTED TENTATIVE
LOC

SCAL

PLOT PLAN

TENTATIVE ROUTE OF PROPOSED HIGHWAY LOCATION

SCALE - 1/8" = 100'

PLOT PLAN

TATIVE ROUTE OF PROPOSED HIGHWAY
LOCATION.

SCALE = 1/8" = 100'

FUTURE

RODDING BLDG.

CARBON MILLING & MIXING

ANODE PRESS & STORAGE

PITCH & COKE STORAGE

CARBON BAKE FURNACE

APPROX. 275'

CAST HOUSE

200'

650'

POT LIN

NE BLDG. NO. 3 & 4

50

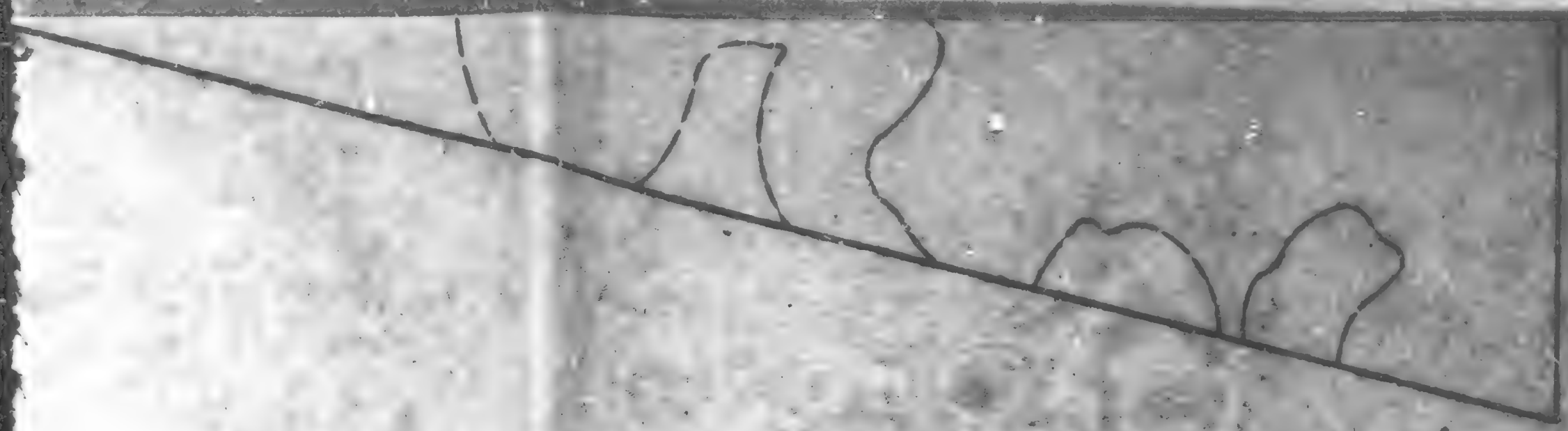
1710

RECTIFICATION
& TRANSFORMERS

BONNEVILLE
SUB STATION

SUB
STATION

APPROX. 3000'



FUTURE

RODDING BLDG.

FLOURIDE STORAGE

16

330'

FUTURE

FLOURIDE
STORAGE

16

FUTURE

330'

FUTURE

ALUMINA STORAGE

FLOURIDE STORAGE

ROADWAY

160'

110'

CALCIN-ATION

FUTURE

350'

H2O. FILTER

50'

100'

160'

EVAPOR-ATION

100'

100'

75'

FUTURE

STEAM PLANT

160'

DIGE

ROADWAY

180'

PRECIPITATION

160'

FILTRATION

MUD WASHING

300'

URIDE
ORAGE

ROAD

160'

110'

CALCIN-
ATION

FUTURE

350'

HYD.
FILTER

35'

100'

160'

100'

EVAPOR-
ATION

75'

100'

FUTURE

100'

STEAM
PLANT

160'

20

100'

DISE

ROADWAY

180'

PRECIPITATION

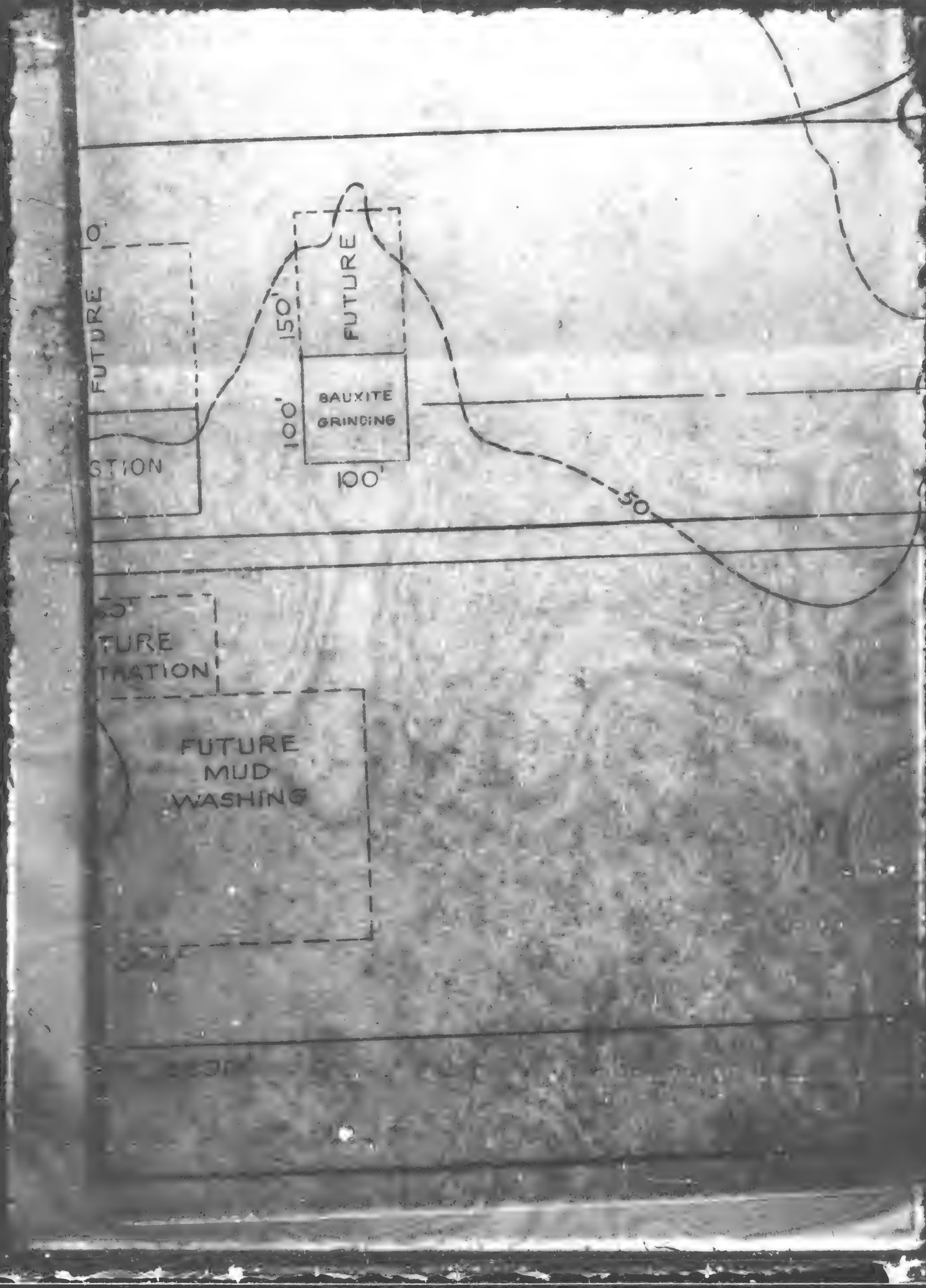
160'

FILTRATION

MUD
WASHING

300'

APPR


FUTURE
STION
FUTURE
TRATION
FUTURE
MUD
WASHING
FUTURE
150'
100'
BAUXITE
GRINDING
100'
50

CON

RIGH

VEYOR BELT

HT OF WAY

N

SCALE: 1" = 100'

DWG. NO.	TITLE

REFERENCE DRAWINGS

NORTHWEST ALUMINUM COMPANY, INC.

CLATSOP COUNTY, OREGON

CLIFFORD S. STRIKE & COMPANY
INCORPORATED

CONSULTING ENGINEERS

TITLE

ALUMINUM FACILITIES

PLOT PLAN

APPROVED

CLIFFORD S. STRIKE & CO.

DATE

E-00-

.1979 S. Unit, Astoria - 8949
.Camp Rilea Sec. 101
.AMAX Co. E.I.A. Appendix #2

ENVIRONMENTAL IMPACT ASSESSMENT
ALUMINUM REDUCTION PLANT

WARRENTON, OREGON

APPENDIX SUPPLEMENT

SEPTEMBER, 1974

AMAX PACIFIC ALUMINUM CORPORATION

ENVIRONMENTAL IMPACT ASSESSMENT
ALUMINUM REDUCTION PLANT
WASHINGTON, OREGON

APPENDIX SUPPLEMENT

SEPTEMBER, 1974

AMAX PACIFIC ALUMINUM CORPORATION

ENVIRONMENTAL IMPACT ASSESSMENT
ALUMINUM REDUCTION PLANT
WARRENTON, OREGON

TABLE OF CONTENTS

APPENDICES

A. A Comparison of Sites for Alumina Unloading Facilities - CH2M Hill - October 1971

B. Thermal Emissions From the Amax Aluminum Plant at Warrenton, Oregon - H. E. Cramer Company, Inc. - July 12, 1974

C. Statistics and Inventory of Clatsop County Schools - Richard B. Knotts, Superintendent Clatsop County Intermediate Education District July 1973.

D. Intalco - Warrenton Population and School Survey - Gene Rorvig - August 1971.

E. Impact of a Major Change on a Coastal Economy: A Large Aluminum Plant in Clatsop County - Oregon State University - March 1973.

F. The Environmental Consequences of the Sale of Power by the Bonneville Power Administration To Amax Pacific Aluminum Company - Herschel F. Jones - April 12, 1974.

G. Fluorine Levels in Plants of the Warrenton Area - Oregon State University - 1968-1970, July 1971.

H. Responses to Amax from Consultants : evaluation of potential effects of fluoride emissions from the Warrenton plant.

A

CORNELL, HOWLAND, HAYES & MERRYFIELD
1600 S. W. Fourth Avenue, Portland, Oregon 97201, Telephone: 503/224-9190
Portland Regional Office

ENGINEERS PLANNERS ECONOMISTS

8 October 1971
Rec. No. P6862.0

Mr. Ted Briggs
Vice President
AMAX Pacific Corporation
P.O. Box 937
Ferndale, Washington 98248

Dear Mr. Briggs:

Subject: Comparison of Sites for Alumina Unloading Facilities

This letter along with attachments 1 and 2 is the report of our investigation and comparison of Tansy Point and Port of Astoria Pier 3 as alternate sites for developing alumina unloading and storage facilities to supply the proposed Warrenton, Oregon aluminum reduction plant.

Conclusions and Recommendation

We conclude that the Pier 3 site located in the Port of Astoria harbor area has more advantages and fewer disadvantages for the development of unloading and storage facilities.

We therefore recommend that the Pier 3 site be selected for detailed study and that such further study be defined and undertaken as soon as practical.

Site Comparison - Procedure and Scope

The scope of our work was limited to a "reconnaissance" type investigation of the site. We reviewed certain existing data, met and talked to a number of people and added in our own experience.

The available existing data included USGS quadrangle maps, navigation charts, channel condition surveys, photographs, and information from your own files. Discussions were held with representatives of the Burlington Northern Railroad, Corps of Engineers, Port of Astoria, Columbia River Bar Pilots, and the Clatsop County Planning Department.

Budget requirements limited the investigation to about ten man-days. Perhaps no new or startling information was discovered but the procedure provided enough material and understanding to identify the primary assets and shortcomings of each site from which an evaluation and judgment on the relative merits of the site was made.

There are things we were not able to do. We did not develop specific technical data on soils, topography, or survey information. No site layouts, plans or cost estimates were prepared. No direct contact was made with State or Federal Fisheries Agencies, Warrenton, Astoria, or Clatsop County, Department of Environmental Quality, Oregon State Highway Department or the power companies.

Site Comparison Summary

Our investigation and comparison of the two sites was initially intended to be of a general but basically engineering nature. Very early in the work it was discovered that there was little engineering data which could be compared. Further it became apparent that factors other than engineering aspects would probably have equal or possibly greater influence on the respective merits of each site. As a consequence, our considerations covered a rather broad range of subjects but, understandably, the coverage is quite general in some areas. We feel, however, that the general overall view provides a better base for a judgment evaluation of site potential at this stage than a strictly engineering approach in greater detail. Listed below are summary comments on features we feel are the most significant. A more complete set of comparison notes and comments is included as Attachment 1.

Tansy Point Site

Advantages:

1. The site is closer to the sea, consists primarily of natural soils, and lies at usable elevation perhaps four feet above Pier 3.

2. Location at the outside bend of the navigation channel and the current flow pattern provides maximum opportunity for self maintenance of channel and mooring basin depth.

3. If located at Tansy Point an unloading facility would probably have little or no potential for multiple use which would give AMAX complete freedom and control of operations without requiring coordination with other users and without the exposure to interference and possible damage from other operations.

Disadvantages:

1. The dry land area is small (six or seven acres) and irregular in shape. These features would require extensive structure to reach deep water or a dredging and filling project to produce a usable site configuration with few development options.

2. There seems to be little or no probability of developing a multiple use facility there, which means all costs of initial development and maintenance of both structures and waterways would be AMAX costs.

3. The dry land property owned by Burlington Northern Railroad is leased and occupied by both residential and light industrial users. Apparently such leases can be terminated but considerable cost, possibly long delay and even court action might be required to make this land available. There has for some time been a question of Burlington Northern's title to submerged and tidal lands. The Oregon State Attorney General's opinion of about 20 September 1971 confirms state control over these lands and would probably make it difficult to acquire any rights to this land and even more difficult to develop any facility requiring dredging or filling of estuary tidelands.

4. The mixed land use pattern in the area indicates a lack of clearly defined acceptable land use plan. There appears to be the possibility of multiple exposure to public objection to the project. This might be overcome but would be time consuming and consequently add to the expense.

5. The route of ground transportation, either rail or road, but particularly road, is through the congested commercial and residential areas of Warrenton. Use of local streets by a fleet of heavy trucks is seen to be at least a source of objection by the public and might result in added costs for upgrading and maintenance of roads which are probably not designed for such traffic.

Pier 3 - Port of Astoria

Advantages:

1. Dry land area of 26 acres at about elevation 12 is rectangular in shape which provides adequate space and a configuration with several development plan options.

2. The land is presently unused, owned by the Port, and available now.

3. The Corps of Engineers has under consideration the creation of a turning basin 40 feet deep at Mean Lower Low Water (MLLW) adjacent to Pier 3. If approved, authorized, and funded by Congress, initial dock front dredging and subsequent maintenance cost would be borne by the Government. It is assumed also that any future increase in authorized channel depths, say to 50 feet, would include the turning basin.

4. There appears to be a good opportunity to develop a multiple-use dock facility. If so developed it is likely that AMAX costs could be lower than for any exclusive use facility which is used only two to four days per month regardless of the specific location.

5. Although some dredging and possible land filling would be desirable from an engineering economy view, it would probably be a relatively small amount. There is considerable precedent established at Pier 3 for this activity and as such would probably not affect the environment or be subject to severe public criticism or objection.

6. Ground transportation routes by either rail or truck are reasonably direct and traverse undevelopable or lightly developed areas. (Truck route is via state highways which are intended and designed for the traffic volumes and weights that are anticipated.) Future highway facilities are expected to further improve this transportation option.

7. Existing waterfront uses and heavy industry at Pier 3 indicate land use intent and public acceptance of such activities at the waterfront.

8. An Astoria location would serve to associate the AMAX facility with the main area population center and possibly allow the Port and the City of Astoria to benefit more directly.

9. The Pier 3 site could probably be developed, operated, and maintained at less cost to AMAX than Tansy Point.

Disadvantages:

1. The location adjacent to the main highway is in full view of travelers and tourists and directly below residential areas.

2. Ground transportation access to and from the State Highway and through the Port area is congested and some delays will probably occur.

3. A Pier 3 facility, particularly a multiple-use dock, will require that operations and use priorities be established by agreement which may not permit AMAX great flexibility or complete control over its own operations.

Discussion

While our investigation was admittedly brief and quite general in some respects, it has touched on many of the significant factors. There are other items that need to be factored into your site selection decision. These might include financing, insurance, taxes, and social-political factors regarding the Company goals and image.

Regardless of the site you select, we suggest you organize and proceed with additional work to confirm that selection and establish the scope and character of the waterfront development.

The need to move ahead now is perhaps more urgent in the case of Pier 3. It will take some time to explore and develop the multiple-use concept with the Port of Astoria and to outline a facility and use arrangement satisfactory to all. In addition, such a proposed plan would probably add considerable justification to the Corps of Engineers turning basin project. The sooner such information was developed, the more useful it will be.

Attachment No. 2 includes our ideas and suggestions on the scope of work and studies that logically follow the selection

of the unloading site. This list is not all inclusive but contains the important items as we see them at this time.

We would be pleased to talk with you further about the site comparison work and our suggestions for continued study of the selected site. We appreciate the opportunity to provide you with this site comparison and hope we can continue to be of service in this and other aspects of your overall development program.

Very truly yours,

William F. Johnson

William F. Johnson
Division Manager
Civil Engineering
Portland Regional Office

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Encl.

Attachment 1: Site Comparison
Notes and Comments

Attachment 2: Suggestions for Further Study of
Alumina Unloading Facility

ATTACHMENT NO. 1

TO

LETTER REPORT TO AMAX

Dated 8 October 1971

SITE COMPARISON NOTES

AND COMMENTS

NAVIGATION COMPARISONS

Item	Pier 3	Tansy Point
1. Channel miles	12.8 miles from bar to site	10.2 miles from bar to site
2. Channel	Maintained by Corps of Engineers 600 ft. wide and 40 ft. deep @ MLLW	Same
3. Shoaling	Some deposition in front of Pier 3 and considerable shoal on West. Very light rip-rap holding.	Extensive tide flats on east. Minor deposition on north. Pile dikes on West. Heavy rip-rap indicates strong currents.
4. Currents	Approximately parallel to pier face.	Point is on outside bend of channel. Deep water good and continual scour on both flood and ebb tides.
5. Wind	Away from land 270° and 70% of the time	Away from land 235° and 85% of the time
6. Traffic	Local ship traffic in port area plus passing upriver ships. Only a few small craft from Astoria moorages.	All ship traffic passes. Heavy small craft traffic from Warrenton and Astoria moorages.
7. Major obstructions	None	None
8. Turning/ Docking	Corps' turning basin study looks favorable. Gov't. would pay for construction and maintenance if approved. Dock should be parallel to currents.	Probably enough turning room with natural depth. Development plan might provide more room but also problems with environment plus direct construction and maintenance cost to AMAX. Dock should be parallel to currents.

BASIC SITE COMPARISON

Item	Pier 3	Tansy Point
1. Size Existing Potential	Regular shaped 26± acres Probably little change.	Burlington Northern property only 6-7 acres dry. Irregular shape. Additional 15± acres submerged. Physically potential to enlarge but legal and environmental problems are possible.
2. Elev./topog	Flat at el. 12 or 13 at MLLW	Fairly flat at elevation estimated at 14-17 at MLLW.
3. Availability	Owned by Port of Astoria	Owned by BNRR but leased and occupied. State of Oregon claims ownership of submerged and tidal lands.
4. Surrounding land use	West - Open tide lands North - Columbia River East - Additional docks and ind. South - Commercial	West - Residential/Rec. North - Columbia River East - Open tide lands South - Res./Rec./Undeveloped
5. Soils	All hydraulic fill over unknown material	Natural - mostly sand
6. Present use	Unused except for temporary log storage	Mixed including light industry and residential
Projected use	Port site	Unknown - Present use indicates no general scheme
7. Distance to Warrenton plant:		
By rail	4.6 mi.) scaled	4.4 mi.) scaled
By road	3.8 mi.)	4.6 mi.)

GROUND TRANSPORTATION COMPARISON

Item	Pier 3	Tansy Point
1. Rail concept a) At dock	Good long straight spur. Track maintenance may be high with 100 ton cars on fill. Convenient local switching by RR. Congested with other traffic.	Awkward spur arrangement. May need to upgrade track and road bed. Any local adjustments probably by "car-mover." No other traffic but small area with problems in developing proper spur length.
b) Dock to plant	Youngs Bay trestle needs structural modification. May be required anyway to move aluminum back. May be some back haul advantage.	Route through Warrenton; may be good options for plant spur from north or west. Local RR crossings and possible bridge restrictions.
c) Costs	Approximately $40 per 70 ton car (per BNRR)	Same
2. Road concept a) At dock	Congested - other port traffic - RR, etc. Left turn empty required from highway.	No problems but local road construction required.
b) Dock to plant	On State Highway. No load or capacity problems anticipated. New freeway will improve vehicular route and plant access.	On City streets with possible problems with capacity, noise, traffic, etc., and citizen complaints. Effect of State Highway improvements probably minimal.

SITE DEVELOPMENT AND UTILITIES COMPARISON

Item	Pier 3	Tansy Point
1. Structures		
a) Dock	Probably no problem with piling, etc. Location and orientation pretty well fixed by existing dock.	Same Complete orientation freedom subject to economics, navigation, and dredge/fill problems.
b) Dredging and land fills	No physical problem, but disposal will probably be environmentally opposed. There is some precedent for filling. Corps turning basin project could minimize all problems.	Substantial environmental impact. May be objections to excavation - surely to filling. Would have to be done and paid for by AMAX.
c) Silos/ domes for storage	Corrosion and uplift problem if below ground.	Same
	Long term settlement on fill without piles.	Natural ground for the most part.
d) Bank protect	Nominal	Possibly extensive due currents.
e) Roads, etc.	Possible settlements on filled land.	Probably no problem.
2. Utilities		
Water	Probably adequate now	Possibly inadequate
Waste	Probably satisfactory	Same
Power	Unknown but assumed to be no problem.	Unknown, but assumed to be no problem.
Drainage	Easily developed but some control over possible contamination by alumina dust probably required.	Same
3. Site Layouts	Fairly regular - several options possible	Irregular shape, narrow with few options likely.
4. Use Plan	Joint use facility is a strong possibility. Possible joint use conflicts. Exposure to damage, fire, etc. Limited AMAX control over operation.	Most likely single or exclusive use only with possible higher cost. Complete AMAX control.

ENVIRONMENTAL IMPACT COMPARISON

Item	Pier 3	Tansy Point
1. Natural systems		
a) Soils	See "Basic Site"	Same
b) Topog	See "Basic Site"	Same
c) Water	Unknown	Same
d) Climate	No affect on or by except winds	Same
e) Terrestrial wildlife	None known	Probably very minimal misc. small animals and birds.
f) Marine life	Little but any fill will damage.	Unknown, but may be significant clams, etc. subject to damage by dredging and filling.
g) Vegetation	None except volunteer weeds.	No timber; weeds and misc. only.
2. Manmade systems		
a) Cultural/ historical	None known	Unknown
b) Public service	None known	Unknown
c) Neighbor-hood	Industry	Mixed, light industry, recreation, residential and open space.
d) Aesthetics	Site viewed through travelers and by upland residents.	Little natural exposure to view; possibility of further shielding.
e) Population	Non-residential, but near urban.	Low density, but some waterfront residential.
f) Land use	Industry - implies prior community decision and acceptance.	Mixed - implies lack of policy and possible conflicts.
g) Community Facilities		
-Schools	No	Not now
-Parks	No	Fort Clatsop - Beach Park potential
-Other	No	Not now
h) Utilities and transportation	See "Site Development" and "Ground Transportation"	Same

RELATIVE COSTS COMPARISON

Item	Pier 3	Tansy Point
1. Land acquisition	No capital expense	Might involve capital cost. Cost of lessee interest could be very high.
2. Physical Dev. Costs		
Structs	Opportunity to lower AMAX cost via multi-purpose facility.	All cost to AMAX
Land(fill)	Might be nearly none if Corps of Engineers approves turning basin.	All cost to AMAX Might be fairly high.
Dredge	Moderate in any case.	Could be extensive.
Utilities	Minimal	Moderate. Higher if good fire protection is required.
3. Transportation Costs		
Rail	Reported $40 per 70 ton car.	Same
Road	Moderate on-site initial costs.	Same - except possible local street improvements and maintenance sharing with Warrenton.
4. Maintenance		
Dredge	Shared by Port or possibly nearly none if turning basin is approved.	All maintenance dredging by AMAX should be low at Tansy.
Structs	Possibly shared by Port and other users.	All direct cost to AMAX.
5. Financing	Unknown	Same
6. Taxes	Unknown	Same
7. Insurance	Unknown	Same

ATTACHMENT NO. 2

TO

LETTER REPORT TO AMAX

Dated 8 October 1971

SUGGESTIONS FOR FURTHER STUDY OF ALUMINA UNLOADING FACILITIES

SUGGESTIONS FOR FURTHER STUDY

Generally, the information developed to date will provide sufficient comparison of the merits of Tansy Point and Pier 3 to make a selection. There is always the possibility that more detailed study of the selected site will reveal problems not now apparent. To permit reconsideration if necessary, more detailed investigation of the selected site should be undertaken soon.

Listed below are some of the subjects that should be included in the next phase of preliminary work on the selected site.

1. Joint Use Concept: The merits and problems associated with this concept should be investigated. The goal of this study would be to determine first if it is a good idea, then establish the actual joint use opportunities, describe the facility or the criteria it needs to meet, and arrive at an understanding of the way such a project would be organized, designed, financed and operated.

2. Unloading: The type of equipment for unloading should be determined. This is perhaps a part of the joint use investigation.

3. Storage: Determine the most advantageous type and extent of dockside alumina storage plus possible expansion needs and the requirements for storage of other materials.

4. Ground Transportation: The goal here would be to select the primary ground transportation mode and perhaps establish the need for and identify a backup system.

5. Site Layouts: Study alternate methods of utilizing the land consistent with the unloading, storage and transportation requirements and options. The orientation of primary dock structures and the need or wish to dredge and fill would be included. The goal here is to develop a preliminary plan for the dock facility, unloading, storage, and ground transportation.

6. Soils Investigation: Soil conditions should be investigated and design criteria developed during this phase of the planning. The scope of the soils work can be held down and the information made more useful if the soils work is done after the general site layout is fairly well established. In this way borings can be made where structures are expected and with some knowledge of loads and configurations

so that specific information can be obtained. There may, however, be some merit in a two-phase approach. An initial, but limited, program would show the general character of the site and perhaps serve as a warning of unusual or problem conditions, followed by more extensive work when the most probable location and type of facilities is revealed.

7. Permits, Approvals and Environmental Problems: The need for and preliminary information for securing approvals, applying for permits and the identification of environmental impacts should be a part of this phase, as they might exert some influence on other elements like site layouts. Further, permits, approvals and environmental impacts can become significant problems in the later stages of development if overlooked or ignored during the planning stages of a project.

8. Costs: As options are identified for the elements previously discussed, comparisons are made and one of the important bases for comparison is cost. Cost estimates then become an important part of the facility planning work from the beginning to the final summation of the proposed facility.

9. Summary: The next phase of investigation, as we see it, is to develop a plan for site development, which includes the site geometry, identifies the type of dock facility, type of unloading equipment, location and configuration of storage, primary and secondary ground transportation systems, utility systems. It should include an outline of the permit and approval requirements, identification of environmental problems, summary of costs, and a preliminary schedule for implementing the plan.

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12 July 1974

THERMAL EMISSIONS FROM THE AMAX ALUMINUM PLANT AT WARRENTON, OREGON[1]

The principal thermal emissions expected from the operation of the AMAX aluminum plant are shown in Table 1. The total heat discharged from all sources, assuming an average ambient air temperature of 293 degrees Kelvin (68 degrees Fahrenheit), is estimated to be 1.14×10^7 gram-calories per second or 4.51×10^4 BTU per second. Of this total, approximately 44 percent is discharged from the Primary Scrubber System, 24 percent from the Secondary Scrubber System, 18 percent from the Cooling Towers, 11 percent from the Carbon Baking Plant, and 3 percent from the Metal Services Building.

Because the discharge temperatures are higher than ambient, the discharges will rise until their temperatures have been reduced approximately to ambient through the entrainment and mixing of ambient air. The smallest buoyant rise is to be expected from the Secondary Scrubber System emissions because the discharge temperature is only 5 degrees Fahrenheit above ambient. Also, as explained in Section 3.1 of the 12 July 1974 report (Cramer and Bowers, 1974) on the impact on ambient air quality of emissions from the AMAX aluminum plant, building wake effects are expected to preclude the buoyant rise of the discharges from the Secondary Scurbber System when the mean wind speed is greater than about 4.5 miles per hour. The average stabilization heights (average heights above plant grade at which temperature equilibrium with ambient air will be attained) for the various discharges are shown at the bottom of Table 1. Except for the discharges from the Secondary Scrubber System, the stabilization heights were calculated from the Briggs (1971) formula for the maximum buoyant rise of hot stack gases in neutral

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[1]Technical Note prepared for AMAX by H. E. Cramer and J. F. Bowers, Jr., H. E. Cramer Company, Inc.

or adiabatic atmospheric stability with a mean wind speed of 11 miles per hour which is approximately equal to the average annual wind speed measured at the Astoria Airport. Studies of the behavior of hot stack gases show that the stabilization height is attained after the gases have traveled downwind from the discharge point a distance equivalent to about 10 times the discharge height.

It follows from the above discussion and the information presented in Table 1 that the thermal discharges to the atmosphere resulting from the operation of the AMAX aluminum plant will be almost completely dissipated in a thin elevated air layer above the plant property. The average height of the top of this layer is about 600 feet above plant grade and the base of the layer is about 75 feet above plant grade. The net effect of the thermal emissions from the AMAX plant operations is thus to increase the ambient air temperature immediately above the plant property. Air temperatures beyond the plant property should not be affected. Because the thermal discharges are buoyant and therefore continue to rise until their temperature is reduced to ambient, none of the excess heat content will reach the ground.

References:

Briggs, G. A., 1971: Some recent analyses of plume rise observations. Proceedings of the Second International Clean Air Congress, pp. 1029-1032.

Cramer, H. E. and J. F. Bowers, Jr., 1974: Calculated impact on ambient air quality of fluoride, SO_2 and particulate emissions from a proposed AMAX aluminum plant at Warrenton, Oregon. H. E. Cramer Co., Inc. Tech. Rpt. TR-74-408-01 prepared for American Metal Climax, Inc., Denver, Colorado.

TABLE 1

THERMAL EMISSIONS DATA

Parameter	Heat Source					All Sources
	Primary Scrubber System	Secondary Scrubber System	Carbon Baking Plant	Metal Services Building	Cooling Towers	
Discharge Height (ft)	150	75	100	70	40	
Discharge Temperature (^{o}F)	175	Ambient + 5	225	600	90	
Discharge Velocity (ft/min)	3450	400	3450	1700	3000	
Number of Discharge Points	1	80	1	6*	4	
Total Discharge Volume (acfm)	1.5×10^{6}	8.0×10^{6}	1.4×10^{5}	1.5×10^{4}	1.3×10^{6}	
Total Heat Discharged:						
Gram-calories/sec	5.03×10^{6}	2.70×10^{6}	1.25×10^{6}	3.06×10^{5}	2.10×10^{6}	1.14×10^{7}
BTU/sec	1.99×10^{4}	1.07×10^{4}	4.98×10^{3}	1.21×10^{3}	8.33×10^{3}	4.51×10^{4}
Percent of total	44.1	23.7	11.0	2.7	18.5	100.0
Average Stabilization Height (ft)	624	75	272	155	118	

*Only 3 discharge points are operating at any one time.

Statistics and Inventory of
Clatsop County Schools

Richard B. Knotts, Superintendent
Clatsop Co. Intermediate Education Dist.
July 1973

There are seven whole or partial school districts located in Clatsop County, each operating under the jurisdiction of a local school board elected by the people. Six of these districts are wholly within the boundary of the Clatsop County Intermediate Education District, while the seventh is a partial district, being a part of Columbia County District 5 Joint. The portion of District 5J lying in Clatsop County is located in the North East Corner of the County. The County Intermediate Education District operates under Oregon Statutes and is administered by a seven man board selected by the people.

There are five high schools in the County: Seaside in District #10, Warrenton in District #30, Astoria in District 1C, Jewell in District #8, and Knappa in District 5J. Seaside, Warrenton and Knappa High Schools house grades 9 through 12. Astoria District 1C operates the only Junior High School in the area, and as a result grades 7 through 9 in District 1C go to a Junior High School and the Senior High School accommodates grades 10 through 12. Jewell District #8, because of its remote location in the coastal foothills and because of its small size operates on a 6-6 plan, and grades 7 through 12 are taught by secondary teachers. All other county facilities are elementary.

It is not the intent of the Intermediate School District office to even presume to determine the type or form of information which should be a part of the AMAX impact report. This office has never been involved in writing such a report, and hence any conclusion quite possibly would not be compatible. However, we have prepared certain information which we present in three statistical tables, and we will make some observations based on our knowledge and my experience as a superintendent in Clatsop County since 1951. Perhaps the data and observation might be of some benefit to your analyst as he prepares your impact document. We presume no more.

It would be appropriate to state that in Oregon a maximum amount of local control of schools is authorized by statute. Each local school board is elected, and in addition school district boundaries are sacred, and changes in these boundaries take place as a result of local elections. It is safe to say that there will be no rush to consolidate to accommodate industrial impact by popular vote, and up until the present time our legislature has not mandated school district boundaries. Our local districts would seek other answers first. These answers would not be too difficult to come by if we properly interpret the statistical data.

As we proceed to analyze the data, it would seem appropriate to refer to the results obtained in the study completed in the Ferndale School District in Washington State. How we might go about this task would be at the discretion of the AMAX staff, but there certainly must be many apparent parallels, and of especial interest will be numbers of pupils arriving in the various phases of construction, initial and final operational levels.

Table I, Column 8, is likely the one single table that tells this community what we can and can not do with respect to housing pupils. To be sure, the other data presented gives more meaning to the figure reporting maximum building capacity.

Looking at Column 4, Table II, we can see that in almost every case we have experienced a declining enrollment. The net loss of enrollment reported by building is from June 30, 1972 to March 31, 1973, but the trend has been the same over the past few years. Present indications are that the drop in enrollment for next year will not be as significant.

Subtracting Column 3, Table II from Column 8 in Table I will give a close approximation for the capacity of each school building to accommodate added pupils. This is shown in Column 5, Table II. In the case of Astoria District 1C, for instance, the additional pupils grades 1 through 6 which can be accommodated in the three elementary schools is 787. It is quite apparent from the Ferndale data that 787 pupils in grades 1 through 6, are not going to show up in District 1C during any phase of implementation of the Warrenton plant. There is no problem.

In like manner running down Column 5, Table II, we can get a good idea of the ability of each building to meet the challenges of industrial expansion. We can safely assume that District 5J and Jewell District #8, because of their geographic location, have adequate capacity to meet expected industrial impact.

In the Lewis & Clark School District #5, housing grades 1 through 8, they report a capacity of 380 and show an enrollment of 379. This district is contiguous with the Warrenton District, and depending on housing, many families with elementary children would desire to locate in this district. It is significant to note, however, that in 1965 the report shows that there were 485 pupils in this building. The reported capacity is probably most conservative, but the building is old, and major expenditures would need to be made in order to

accommodate many more students. Table III, Column 5, 6 and 7 indicate that there is no bonded indebtedness, and the district could quite easily vote to take care of the problems in capital construction.

There are some observations which may be made which relate to present pupil-teacher ratios, and what portion of added capacity might be made with no increase in teaching stations and what portion of the added capacity which would depend on the hiring of additional personnel. It is dangerous to make any sweeping conclusions for many reasons, but in many cases more pupils can be accommodated in some of the classrooms.

In the first place, there are many definitions of teacher-pupil ratios. Those reported to state authorities by definition include staff counting of auxiliary personnel such as counselors, assistant administrators, curriculum directors, librarians, and so forth. This is satisfactory for some purposes, but certainly not for determining how many more pupils may be accommodated in the actual classroom setting. With this in mind, we approach the problem on the basis of pupil teacher ratios determined by teaching stations activated. This has the most direct relationship with added pupil capacity. Table II, Columns 6, 7 and 8 indicate to some degree the ability to absorb added pupils with current staffing. There is a certain amount of estimating involved but the data should be quite close.

The significance of these three columns, of course, relates to the projected impact on the operating budgets of the districts. Those pupils absorbed with present staffing permit greater basic support from the state, small increases in operating costs, and equal or slightly lower tax levies. As soon as added capacity requires additional personnel, the local levy must be increased to provide for the added costs.

In the second place determination of budgetary implications resulting from the relationship of pupil-teacher ratio and added capacity is dangerous because one cannot determine with a great deal of assurance the grade level, the school district, or the district school building where the children are going to show up. There are answers that can be worked but, it should be pointed out that experience dictates that the actual accommodation of added pupils by reason of low pupil teacher ratios is significantly less than the theoretical figures which might be obtained by cold analysis of classroom loads.

A third concern based on experience relates to the actual philosophy of the community in meeting problems of school enrollment and operating costs head on. Some district boards and administrators have ready answers, even if temporary, and are more interested in good teachers than in ivory palaces. This belief can probably be traced to the fact they are poor--in worldly goods--not necessarily in spirit. A look at Table III, Column 4, indicates the broad spread of worldly goods behind each student. It is very, very doubtful if Jewell, with True Cash Value of $139,175 per average daily membership has an education system 3.27 times as good as Astoria District 1C which has a True Cash Value of $42,457 per average daily membership.

The next logical step would seem to be to make some conclusions on industrial impact in the Warrenton area based on the impact data experienced in the Ferndale area. Although I could make an analysis and make some comparisons, I am not sure that the AMAX Corporation has vested this authority and responsibility in this office. Data on our local schools is a matter of record, and the problem is one of digging out facts and presenting them in some acceptable form. For me to move into a broader area might be questionable.

However, if I were to draw some conclusions for an impact statement for Clatsop County in the event the proposed AMAX facility becomes reality, I think a fine presentation could be developed by using the base line data on enrollments and building capacities reported in these pages and comparing it with the data in the 1971 Intalco survey.

Such an analysis would indicate the expected number of pupils to arrive during each phase of proposed construction, and operation, the estimated geographic location of the added students by district, and whether or not the reported pupil capacity in the school buildings in Clatsop County might be adequate or whether additional capital improvements would be necessary. If AMAX were to commission this office to draw up such an analysis it could be done. It would necessitate reports from the county planning commission on where people are going to settle, and other information not assembled by this office at this date.

Several final observations:

(1) Lewis & Clark School District #5 operates grades 1 and 8, and they tuition their high school students. This district under Oregon Law can tuition their high school students to any district that operates a standard high school. This means

that any added pupil population in the high school grades can be tuitioned to Warrenton, and should prove no burden to Astoria High School which probably become overcrowded with its own increased student load.

(2) Because of the age and design of the Lewis & Clark elementary school it would surely be unwise for the county planning commission and the health department to approve a temporary mobile home center in that district to accommodate temporary construction workers.

(3) The reported capacity of the Warrenton High School from Table I, Column 2, is listed at 550. Present enrollment is 232. Estimated added capacity with present staff is 70. Approximately 30 more could be accommodated by adding two staff members to activate vacant rooms. This suggests 332 students could be accommodated with the plant as is. The reported capacity of 550 leaves 218 pupils unaccounted for. It would be necessary to build an extra classroom wing to accommodate this number.

Such a wing was provided for in the planning done in 1965, and in reporting a maximum capacity of 550, the school board is indicating that outside of the classrooms, the remaining plant facilities are designed to handle a student body of this size. The Warrenton School Board designed Warrenton High School with industrial expansion in mind.

Seaside School District #10 is now in the process of building a new elementary facility to replace their central school. Work is now well along on this $1,800,000 project, and when completed sometime early in 1974, Seaside will have at least 25% additional added capacity to accommodate grades 1 through 6.

All of our districts are in a healthy situation as far as bonded indebtedness is concerned. More than adequate bonding capacity is available to meet any estimated capital improvement requirements. Our school boards have exercised excellent stewardship in the sale of bonds and all issues have sold readily on the bond market at a favorable rate of interest.

There is a study now under way relating to the future of Star of the Sea Elementary School. Their high school was closed down in 1968, and Star of the Sea students grades 7 through 12 transferred to Astoria District 1C schools. A parallel system of schools for grades 1 - 6 is most expensive and proves to be a real financial burden on the parish budget.

Until such time as it closes, there is ample capacity to handle parish pupils grades 1 through 6, which might come with industrial expansion. Were the facility to close, there is ample elementary capacity in the Astoria system.

Astoria District 1C needs to replace the old Central Elementary School. The building is substandard in some respects and maintenance costs are high. It is not now clear whether it should be replaced or phased out in favor of two attendance units. Industrial expansion in the area will have an influence on the board's decision.

Warrenton District #30 needs to replace both the 1890 Fort Stevens facility and the 1916 Warrenton Elementary facility. Insight into the school board's thinking indicates that with the temporary lease of two mobile classrooms at the elementary site the district will be able to absorb all pupils which might result from industrial impact, and capital construction would become the order of the day after the industrial investment was fully included in the True Cash Value assessment, and available to support the capital expense voted by the people in the school district.

Lewis & Clark School District #5 will have to make some major capital investment if they are to accommodate many more students. P.E. facilities are wholly inadequate, and the same can be said for music, cafeteria, and library spaces. A modest bond issue could accomplish these additions and with two classrooms added, the picture would be very bright.

All of the high schools in the county participate in an area vocational center operated by the Intermediate School District. The curriculum includes Electricity/Electronics, Industrial Mechanics, and Vocational Agriculture, including ag, mechanics, horticulture, livestock technology and forestry. There are presently 250 students participating in this cooperative vocational program. The space is bulging at the seams. Any more students would necessitate added facilities. Needed will be two classrooms, added shop floor space, and two vocational instructors. This investment would need to be made by the Clatsop County Intermediate Education District with the approval of the State Department of Education.

Facility-wise the Clatsop Community College is in excellent position. No particular problem resulting from industrial impact is seen as of the present time.

The remaining school districts are rated satisfactory in regard to facilities and industrial expansion will cause no problem.

Signed: Richard B. Knotts
Clatsop County IED
July 5, 1973

'References have been made by Mr. Knotts to the Intalco-Ferndale School study. This AMAX study analyzed the actual age-child structure of its Intalco employees at startup and the impact these children had on the Whatcom County school systems--by grade and classroom. This experience was then modeled and projected for Clatsop County to thus gauge school impacts of the new plant. The Intalco report is contained in this volume as Appendix E.

TABLE I

Inventory - Clatsop County School Buildings - 1972

1 District & Bldg.	2 Year Built	3 Major Additions	4 Grades Accom.	5 # Class-rooms	6 Site Acerage	7 Enrollment 30 June 72	8 Reported Capacity	9 Notes
Astoria District 1C								
Central	1923	---	1-6	23	0.872	318	575	
Gray	1925	---	1-6	20	2.210	300	500	
Astor	1925	---	1-6	26	6.310	429	650	
Jr. Hi	1967	---	7-8-9	32	42.200	655	800	
Sr. Hi	1957	1969	10-11-12	30	19.800	794	740	
Lewis & Clark #5	1927	---	1-8	21	28.700	388	380	Tuition grades 9-12 to Astoria
Jewell #8	1925	1970	1-12	11	10.500	1-8 - 76 9-12 - 35	125	
Seaside #10								
Gearhart	1948	1953	1-6	16	4.970	260	320	
Cannon Beach	1951	---	1-6	6	1.940	92	120	
Central	1923	---	1-6	18	1.890	319	360	New Building '73
Broadway	1949	---	7-8	12	5.200	256	240	
High School	1958	---	9-12	27	16.560	493	540	
Olney No. 11C	Old - 1942 New - 1969	---	1-6	6	11.000	54	100	Tuition 7-12 to Astoria
Warrenton No. 30								Included HS to '48
Warrenton Elem.	1916	---	1-6	22	6.000	324	450	Old Arms Fort with
Fort Stevens	1890	---	7-8	7	8.000	117	175	Moderate Additions
High School	1948	53 - 65	9-12	18	40.000	212	550	
Private Schools								High School
Star of the Sea	1923	---	K-6	11	0.75	128	210	Discontinued '68
7th Day Adventist	old	---	1-	2	small	-	40	---
Community College	1911 1912 1922	1960-72	13-14	---data not available in I.E.D.			----	Old Astoria High

TABLE II

INVENTORY - CLATSOP COUNTY SCHOOL BUILDINGS AND ENROLLMENT - 1973

1	2	3	4	5	6	7	8
District and Bldg.	Grades Accomodated	Enrollment Mar.31, 73	Change Since 72 Report	Added Capacity Col. 8 Table I Minus Col3 Tab.II	Teaching Stations Activated	Pupils Per Activated Station	Added Capacity At Activated Stations
Astoria District 1C							
Central	1-6	312	-6	263	15	20.8	30
Gray	1-6	269	-31	231	14	19.2	30
Astor	1-6	357	-72	293	20	17.8	80
Junior High	7-8-9	651	-4	149	30	21.8	60
Senior High	10-11-12	696	-44	44	29	24.0	0
Lewis & Clark District #5	1-8	379	-9	None	20	19.0	-0-
Jewell District #8	1-12	66(1-8) 31(9-12)	-10(1-8) -4(9-12)	28	3(1-6) 6.5(7-12)	21.8 7.24	-0- 28
Seaside District #10							
Gearhart	1-6	250	-10	70	14	17.8	70
Cannon Beach	1-6	107	+15	13	7	15.2	13
Central	1-6	314	-5	46	20	15.7	46
Broadway	7-8	235	-21	5	12	19.5	12
High School	9 - 12	463	-36	77	28	16.5	77
Olney District 11C	1-6	58	+4	42	4	14.3	20
Warrenton District #30							
Warrenton Elem.	1-6	321	-3	129	14	16.5	70
Fort Stevens Jr. Hi.	7-8	103	-14	72	6	17.0	20
High School	9 - 12	232	+20	218	14	16.5	70
Columbia Co. 5J							
Westport Elem.	1-8	137	Not	30	}	District 5 Joint Reports to	
Knappa Elem.	1-8	458	Determined	65	}	Columbia County - Data not computed	
Knappa Hi School	9 - 12	217		80	}	Added Capacity Reported by Supt.	
Private Schools							
Star of the Sea	1-6	103	-25	109		Data Not Applicable	
Seventh Day Adventist	1-8	18	?	7		Added Capacity Estimated	

TABLE III

INVENTORY - STATISTICS CLATSOP COUNTY SCHOOLS, 1973

1	2	3	4	5	6	7
School District	Estimated True Cash Value 3/31/73	Average Daily Membership 3/31/73	True Cash Value Per 3/31/73 Avg. Dly.Memb.	30 June 1972 Bonding Capacity		
				Legal	Bonds Outstanding	Remaining Capacity
Astoria 1C	$ 85,000,000	2285 -83 (11C) -200 (5) 2002 Net	$ 42,457.00	$ 6,100,408	$1,510,000	$ 4,590,408
Lewis & Clark #5	$24,000,000	379 +200 Tuition 579 Net	41,450.00	$ 884,967	-0-	$ 884,967
Jewell District #8	$ 13,500,000	97	$139,175.00	$ 975,702	-0-	$ 975,702
Seaside District #10	$134,000,000	1369	$ 97,881.00	$ 9,215,815	$2,259,000	$ 6,956,815
Olney District 11C	$ 7,000,000	58 +83 Tuition 141 Net	$49,645.00	$ 228,841	$ 149,000	$ 79,841
Warrenton District #30	$27,500,000	656	$41,920.00	$ 1,855,685	$ 242,000	$ 1,613,685
Columbia County 5-Joint	$180,000,000	1836	$98,039	$15,320,000	$1,949,000	$11,371,000

D

INTALCO - WARRENTON POPULATION

AND SCHOOL SURVEY

AUGUST 1971

INTALCO - WARRENTON SURVEY

TABLE OF CONTENTS

DESCRIPTION	PAGE
I. Introductory message	1
II. Whatcom County employment figures	2
Graph 1 - Employed of total civilian labor force 1964, 1965, 1966	3
Graph 2 - Employed of total civilian labor force 1967, 1968, 1969	4
Graph 3 - Numbers unemployed 1964, 1965, 1966	5
Graph 4 - Numbers unemployed 1967, 1968, 1969	6
Graph 5 - Percent unemployed of total civilian labor force 1964, 1965, 1966	7
Graph 6 - Percent unemployed of total civilian labor force 1967, 1968, 1969	8
III. Intalco construction figures by craft	9
Graph 7 - Construction employees by craft 1964 - 1968	10
Graph 8 - Construction employees by craft 1964 - 1968	11
Graph 9 - Construction employees manual non manual and total 1964 - 1968	12
IV. Intalco production employees hired by month	13
Graph 10 - 1965, 1966, 1967	14
Graph 11 - 1968, 1969, 1970	15
V. Whatcom County school districts	16
Graph 12 - Growth patterns 1965 - 1969	17
Graph 13 - Ten year growth pattern composite, all districts 1960 - 1969	18
Graph 14 - Ferndale School district 20 year enrollment history 1950 - 1969	19
Graph 15 - Ferndale School district projected enrollment 1967 - 1978	20
Graph 16 - Ferndale School district history of assessed valuation	21
VI. Intalco workforce statistics	22
Graph 17 - Intalco children by age, school grade and number	23

VI. Intalco workforce statistics (continued)
A. Intalco school age children (ages 5 - 17) by school grade expressed as a percentage 24
B. Employee age and dependent statistics by hourly and salaried groups 25
C. County population to school population comparison 26

VII. Warrenton hiring pattern 28
Graph 18 - Employee - student projection 29
Graph 19 - Student projection by month, grade, and number 30

VIII. Significant factors in school growth pattern for Ferndale School district as relates to construction and production forces 31

IX. Intalco employees -- areas from which located 32

X. Intalco employees living pattern 34
Graph 20 35

XI. Acknowledgements 36

I. INTALCO - WARRENTON SURVEY

INTRODUCTORY MESSAGE

The purpose of this report is to provide statistics relative to the educational and employment picture in the Whatcom County area during the construction and manning stages of the Intalco Aluminum Corporation facility.

It is hoped this report will provide the necessary reference point in order to meaningfully project the potential impact on the Clatsop County area during the construction and manning stages of the Warrenton facility.

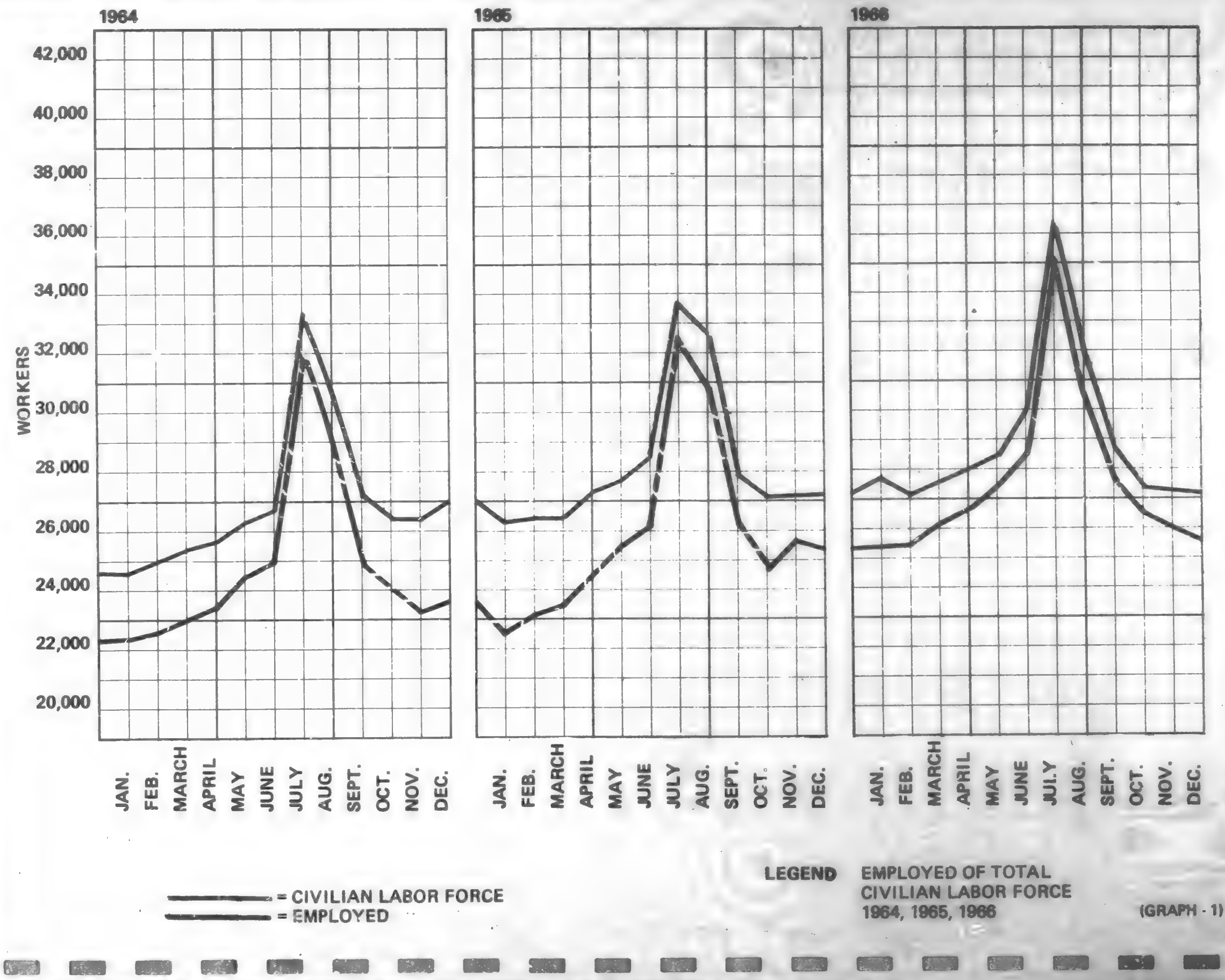
This report is not intended to be the final word but should be used as reference material along with known factors germane to the Clatsop County educational situation.

It is hoped this material will contribute to the knowledge of those individuals charged with the responsibility of conducting the affairs of the educational system in Clatsop County.

INTALCO - HAERENTON SURVEY

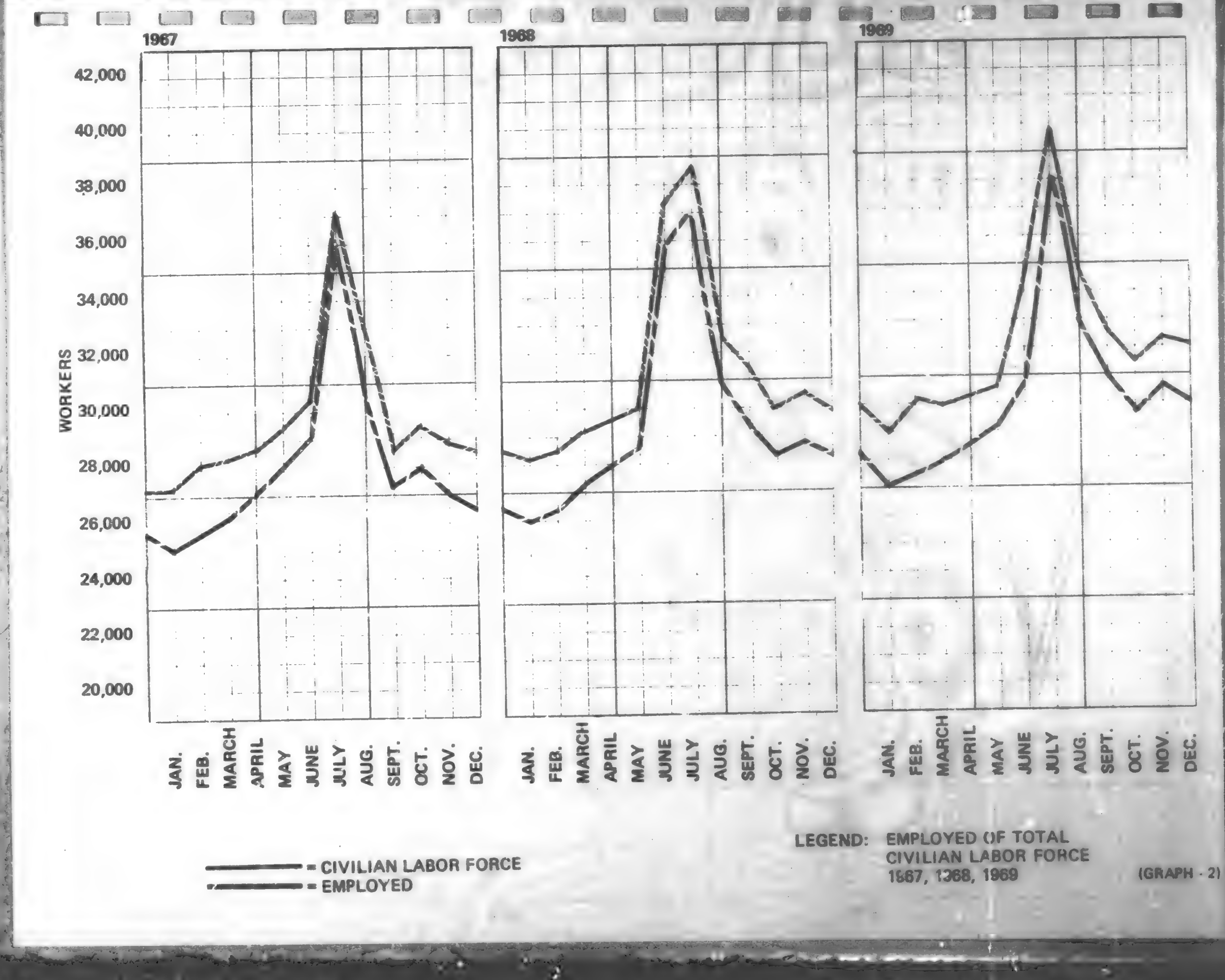
II. Whatcom County Employment Figures

Graphs 1 - 6



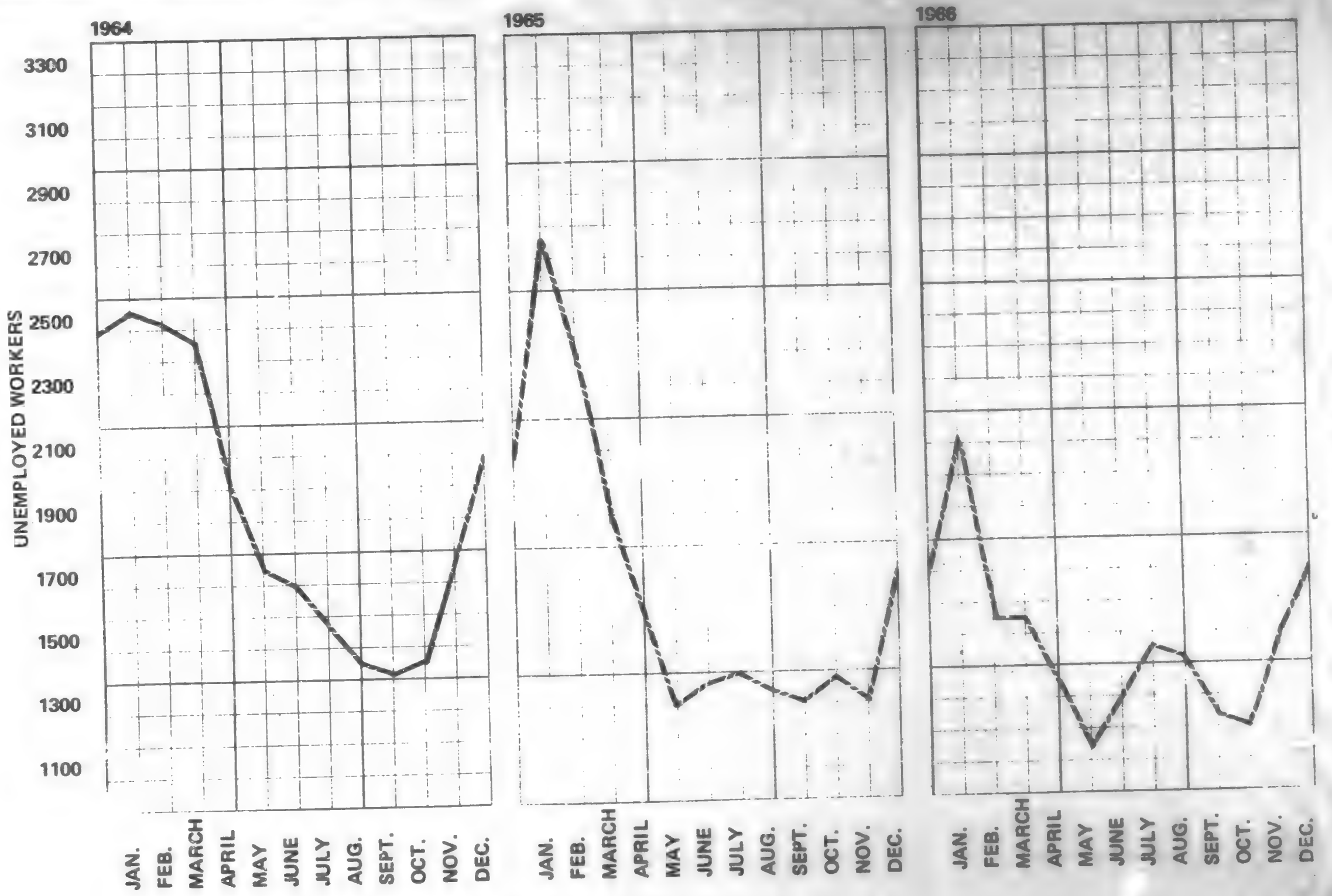
LEGEND EMPLOYED OF TOTAL CIVILIAN LABOR FORCE 1964, 1965, 1966

(GRAPH - 1)



LEGEND: EMPLOYED OF TOTAL CIVILIAN LABOR FORCE 1967, 1968, 1969

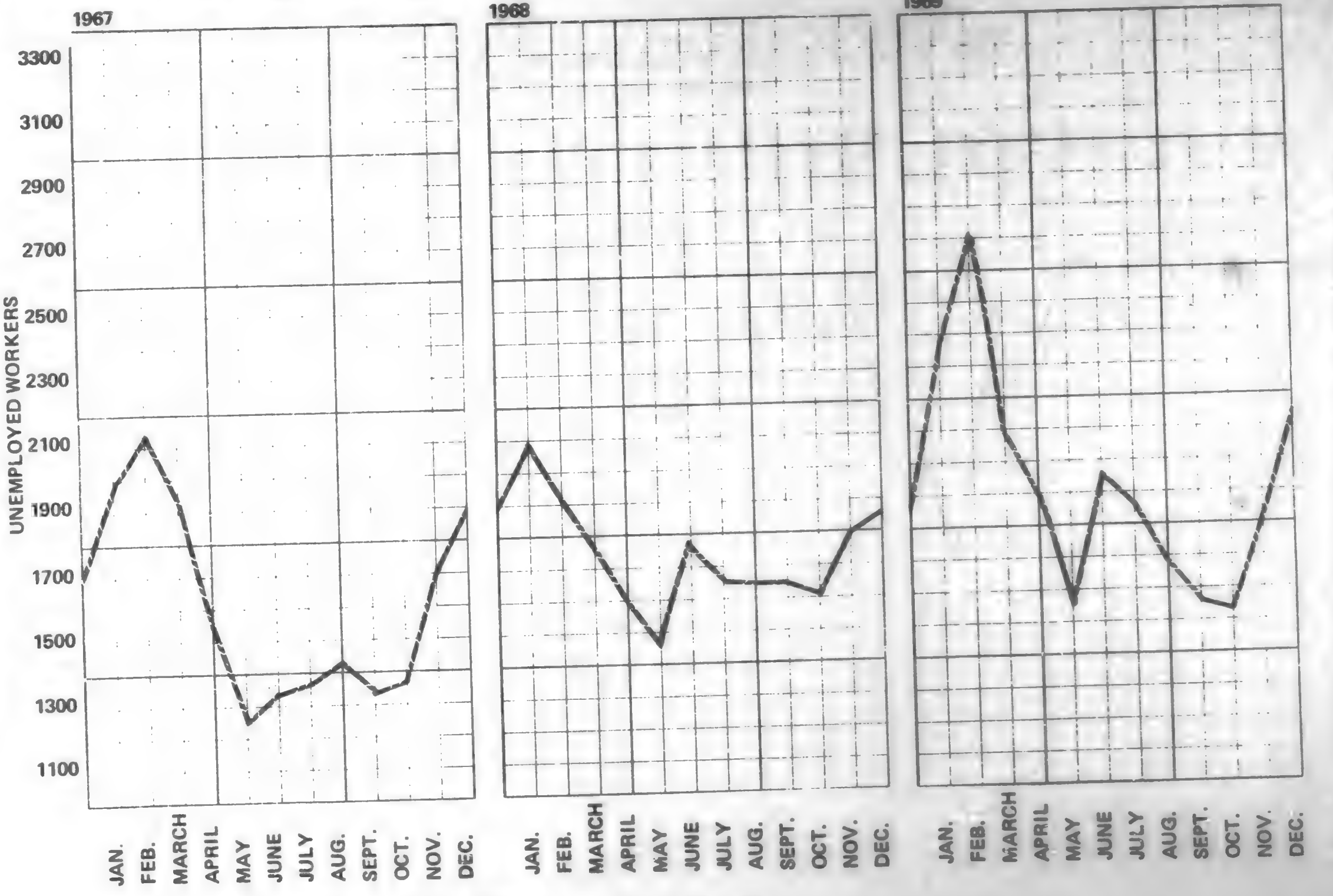
(GRAPH - 2)



LEGEND: NUMBERS UNEMPLOYED 1964, 1965, 1966

NOTE: SOME DISCREPANCIES MAY EXIST BETWEEN TOTAL LABOR FORCE AND EMPLOYED NUMBERS AND UNEMPLOYED DUE TO LABOR DISPUTES. STRIKERS ARE NOT COUNTED AS UNEMPLOYED OR EMPLOYED.

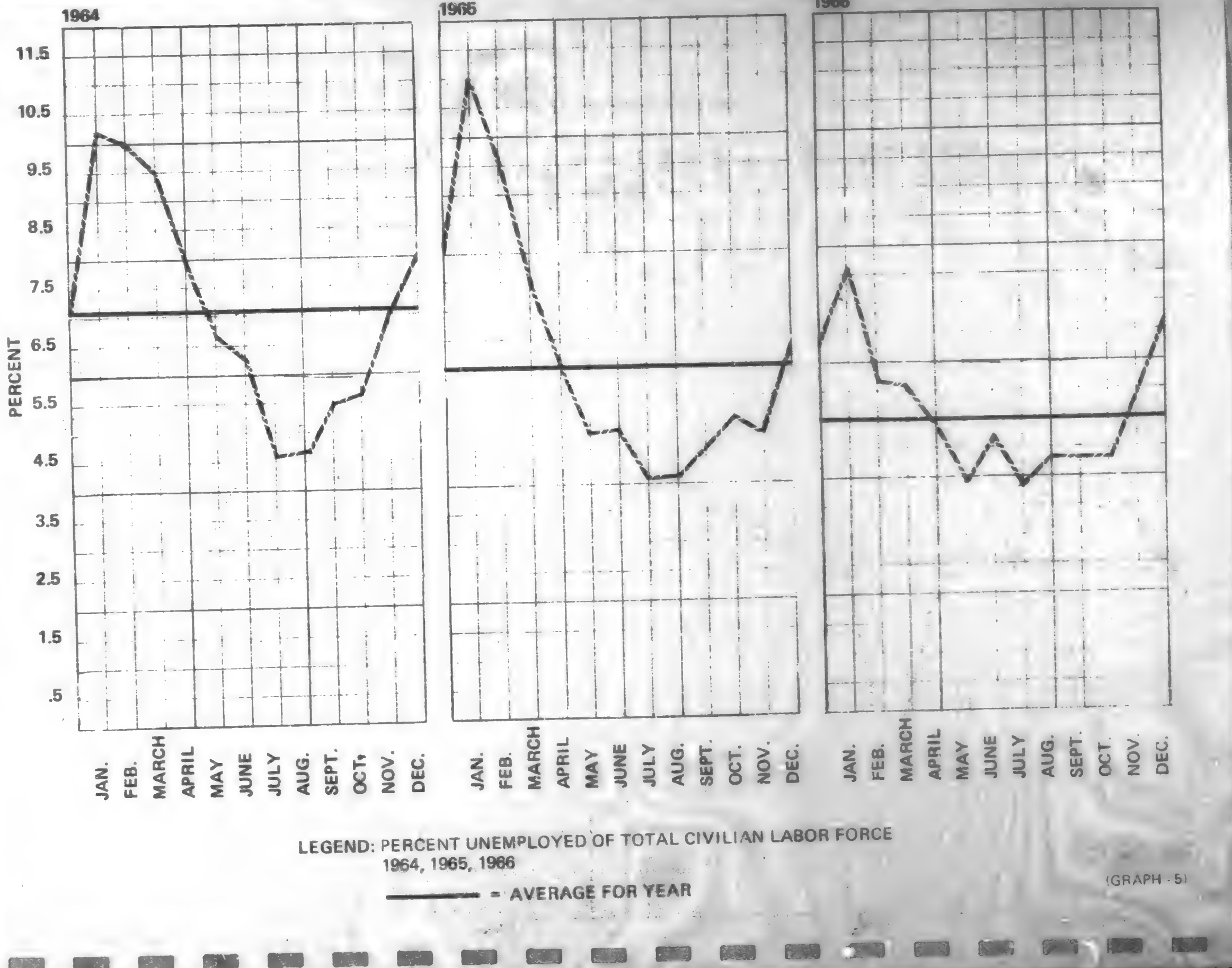
(GRAPH - 3)



LEGEND: NUMBERS UNEMPLOYED 1967, 1968, 1969

NOTE: SOME DISCREPANCIES MAY EXIST BETWEEN TOTAL LABOR FORCE, AND EMPLOYED NUMBERS AND UNEMPLOYED DUE TO LABOR DISPUTES STRIKERS ARE NOT COUNTED AS UNEMPLOYED OR EMPLOYED.

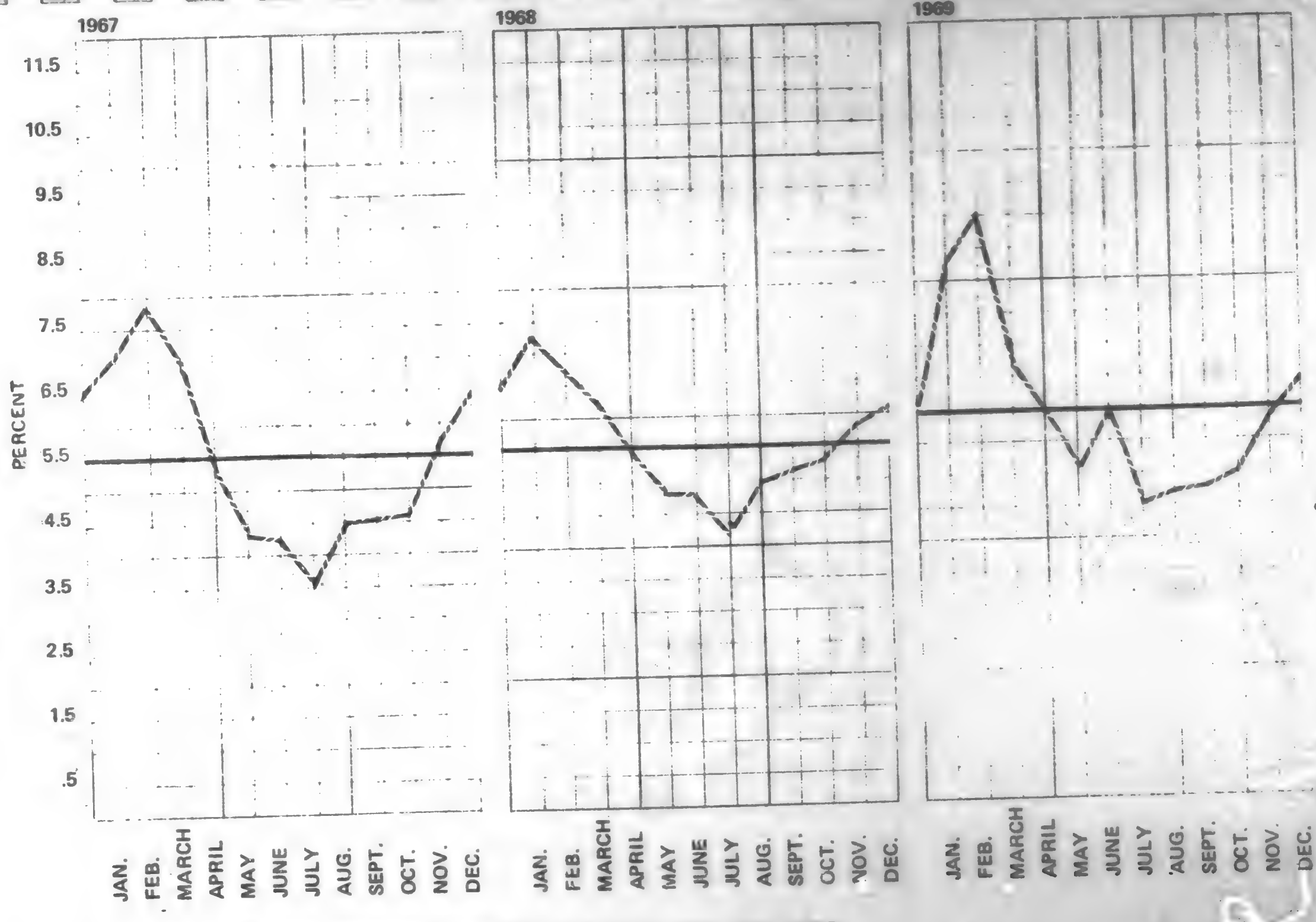
(GRAPH - 4)



LEGEND: PERCENT UNEMPLOYED OF TOTAL CIVILIAN LABOR FORCE
1964, 1965, 1966

——— = AVERAGE FOR YEAR

(GRAPH - 5)



LEGEND: · PERCENT UNEMPLOYED OF TOTAL CIVILIAN LABOR FORCE 1967, 1968, 1969

——— = AVERAGE FOR YEAR

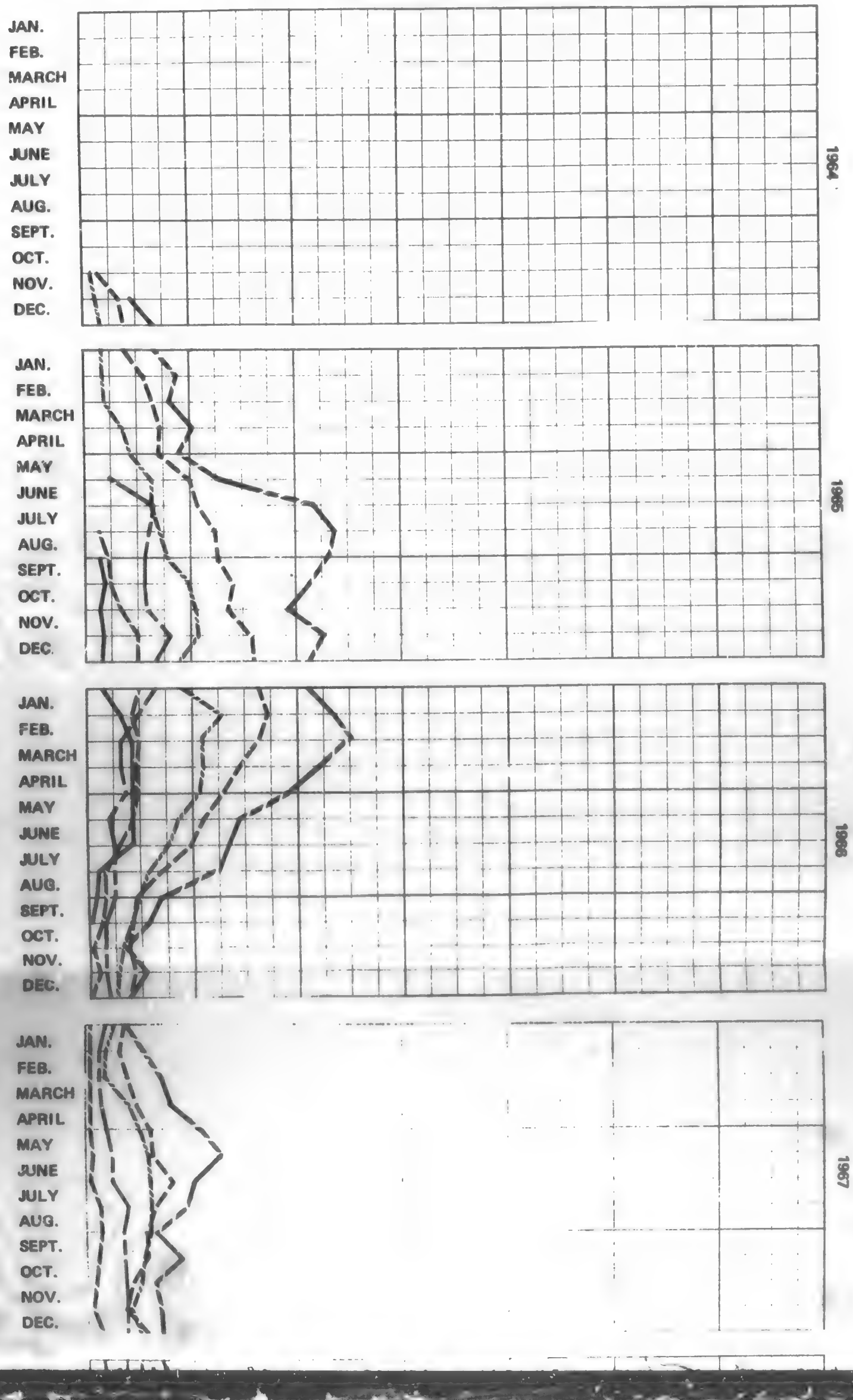
(GRAPH - 6)

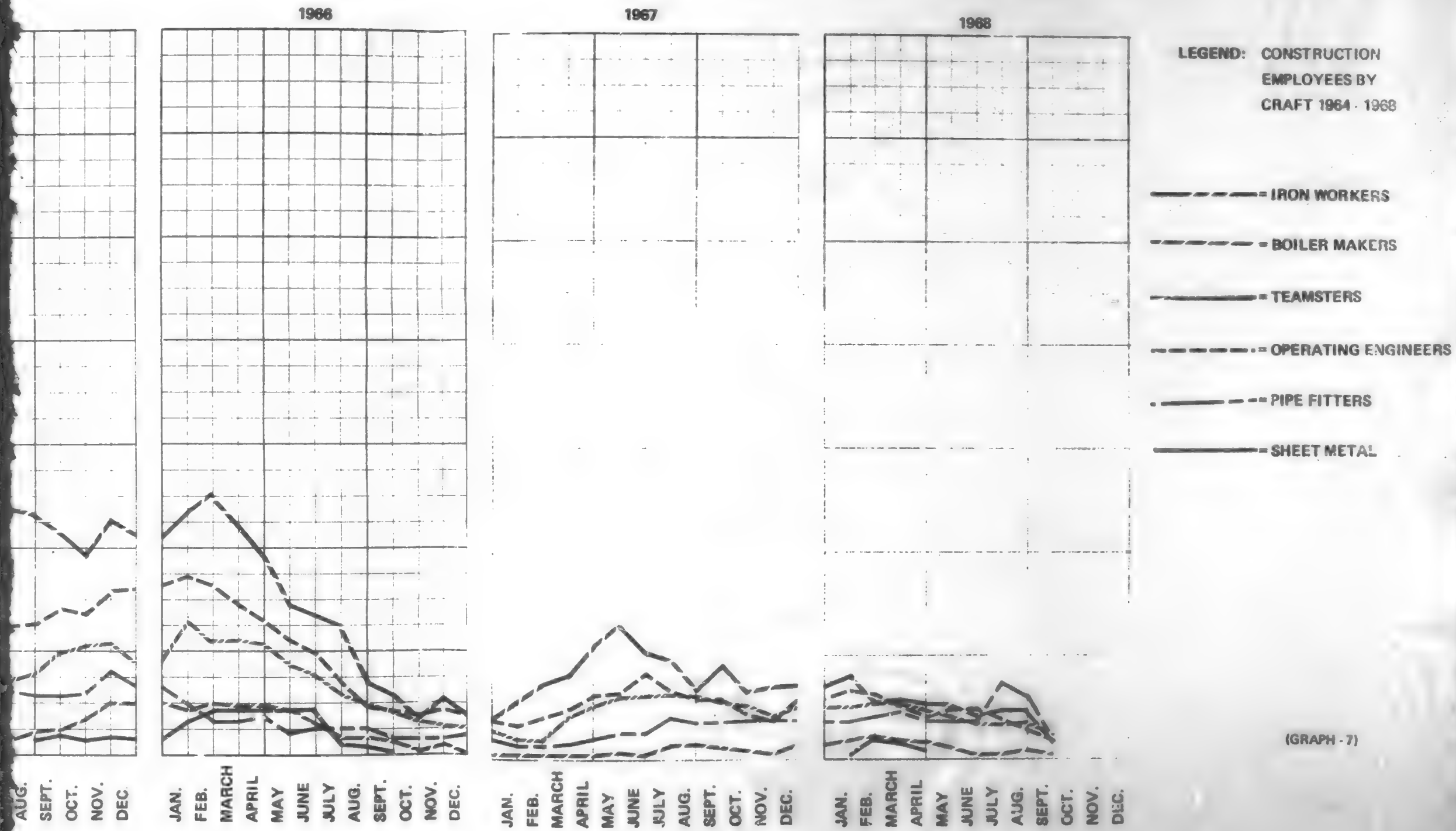
INTALCO - WARRENTON SURVEY

III. INTALCO CONSTRUCTION FIGURES BY CRAFT

Graphs 7 - 9

CONSTRUCTION EMPLOYEES

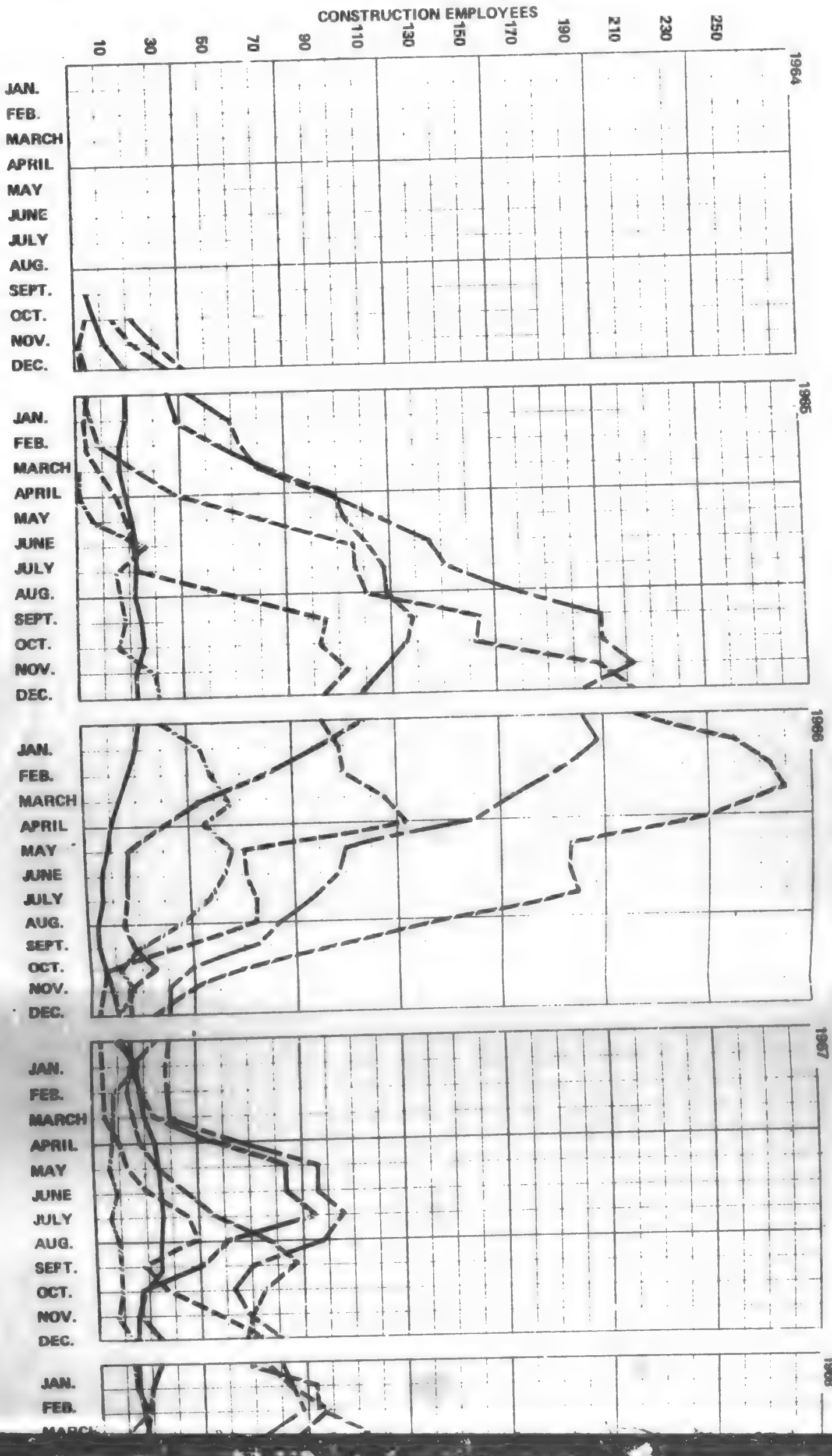


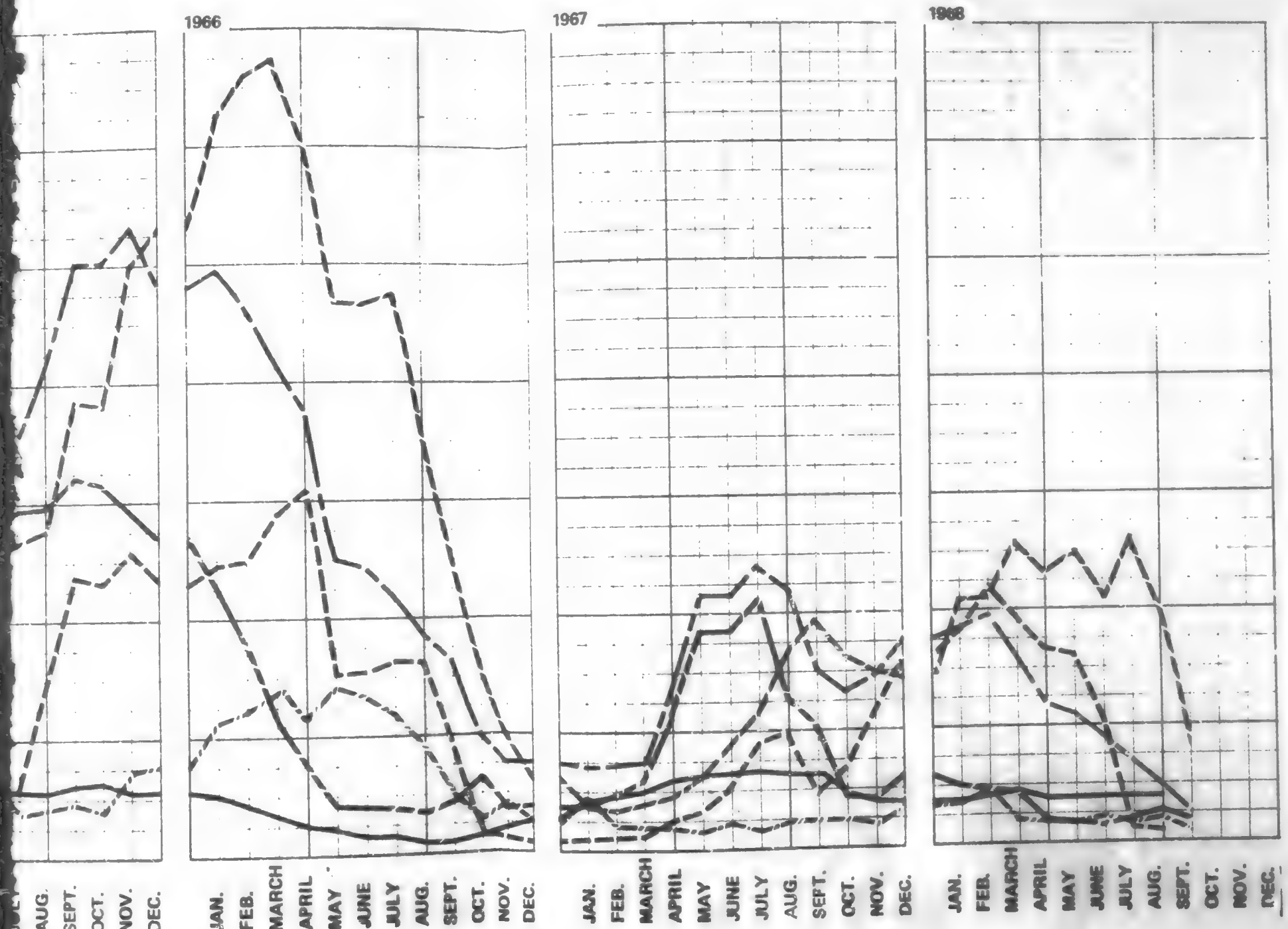


LEGEND: CONSTRUCTION EMPLOYEES BY CRAFT 1964 - 1968

- IRON WORKERS
- BOILER MAKERS
- TEAMSTERS
- OPERATING ENGINEERS
- PIPE FITTERS
- SHEET METAL

(GRAPH - 7)


CONSTRUCTION EMPLOYEES
10
30
50
70
90
110
130
150
170
190
210
230
250
1964
1965
1966
1967
1968
JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.



LEGEND: CONSTRUCTION EMPLOYEES BY CRAFT 1964 - 1968

- LABORERS
- CARPENTERS
- MILLWRIGHTS
- ELECTRICIANS (INCLUDES LINEMEN)
- CEMENT MASONS & BRICK LAYERS
- SURVEYORS

(GRAPH - 8)

CONSTRUCTION EMPLOYEES

50 150 250 350 450 550 650 750 850 950 1050 1150 1250

1964

JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

1965

JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

1966

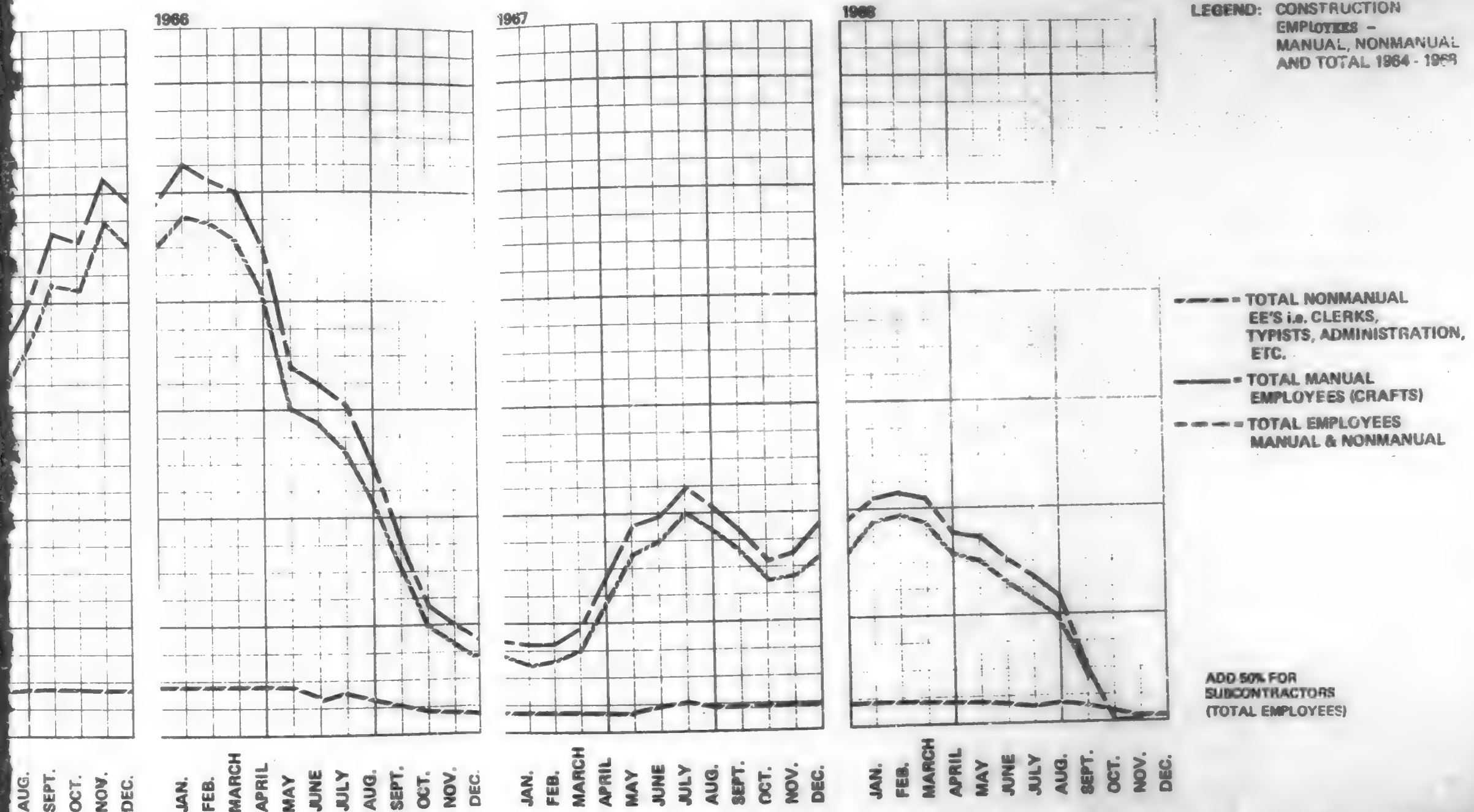
JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

1967

JAN.
FEB.
MARCH
APRIL
MAY
JUNE
JULY
AUG.
SEPT.
OCT.
NOV.
DEC.

1968

JAN.

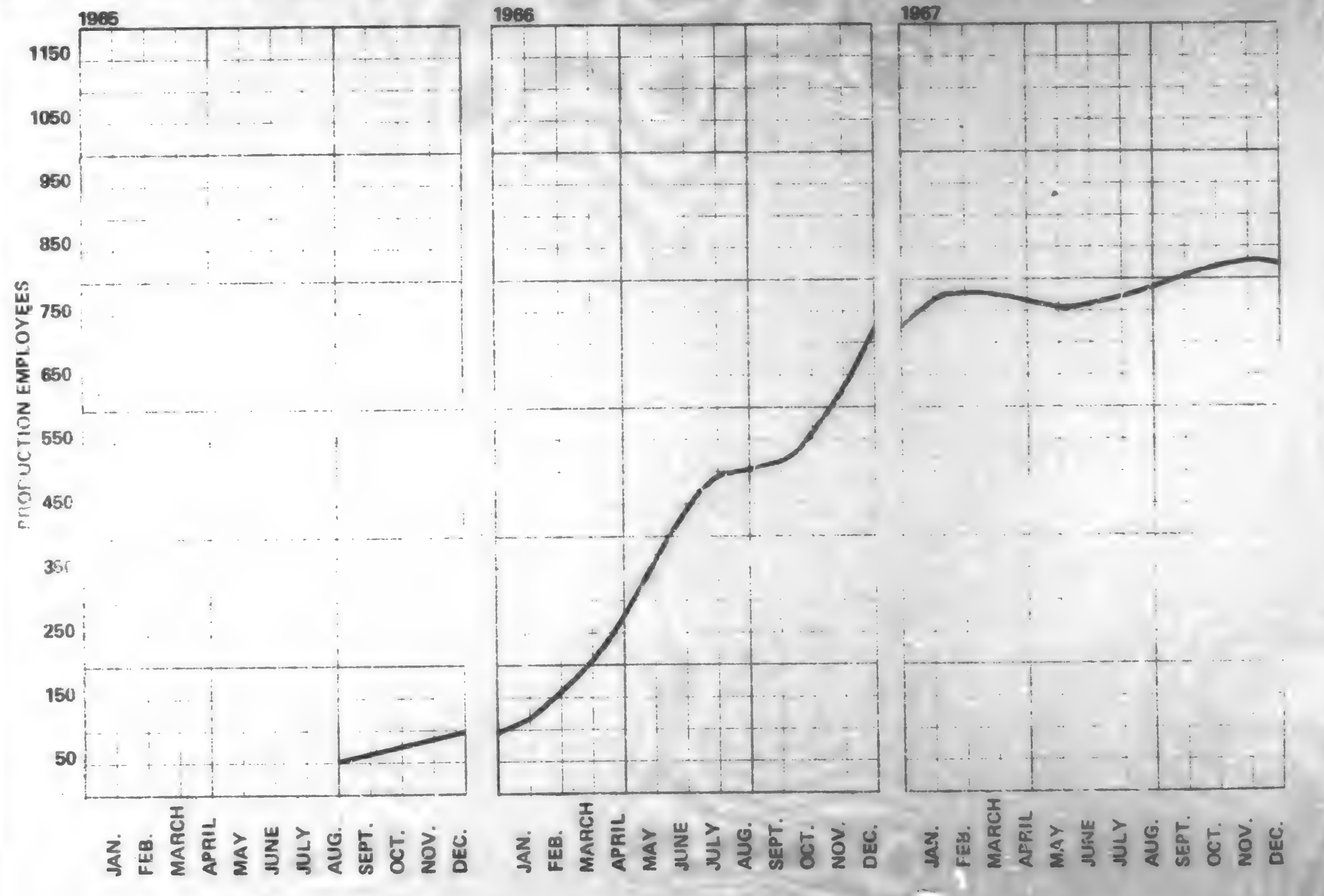


LEGEND: CONSTRUCTION EMPLOYEES – MANUAL, NONMANUAL AND TOTAL 1964 - 1968

- TOTAL NONMANUAL EE'S i.e. CLERKS, TYPISTS, ADMINISTRATION, ETC.
- TOTAL MANUAL EMPLOYEES (CRAFTS)
- TOTAL EMPLOYEES MANUAL & NONMANUAL

ADD 50% FOR SUBCONTRACTORS (TOTAL EMPLOYEES)

(GRAPH - 9)



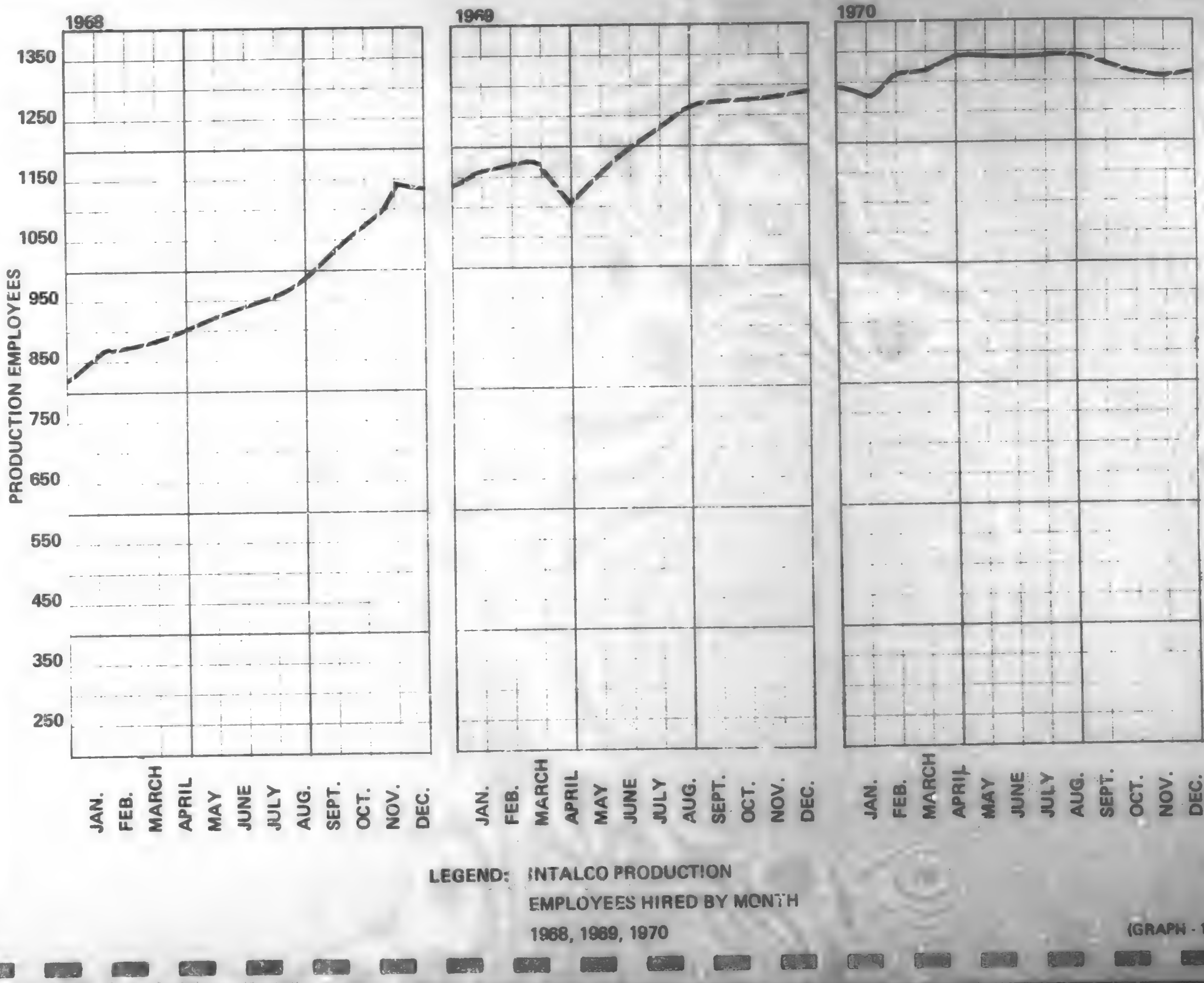
LEGEND: INTALCO PRODUCTION
EMPLOYEES HIRED BY MONTH
1965, 1966, 1967

(GRAPH - 10)

INTALCO - WARRENTON SURVEY

IV. Intalco Production Employees Hired by Month

Graphs 10, 11



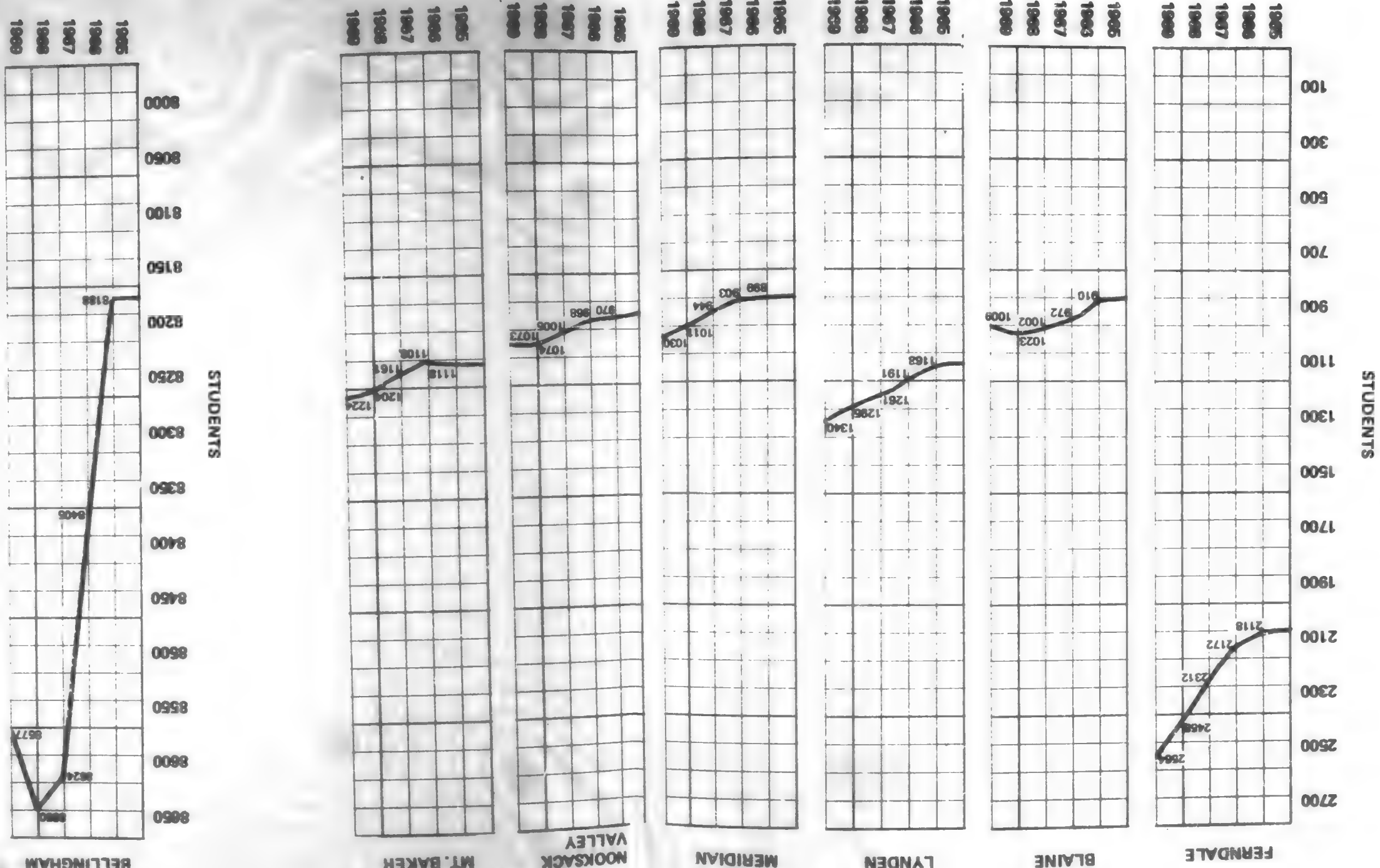
LEGEND: INTALCO PRODUCTION
EMPLOYEES HIRED BY MONTH
1968, 1969, 1970

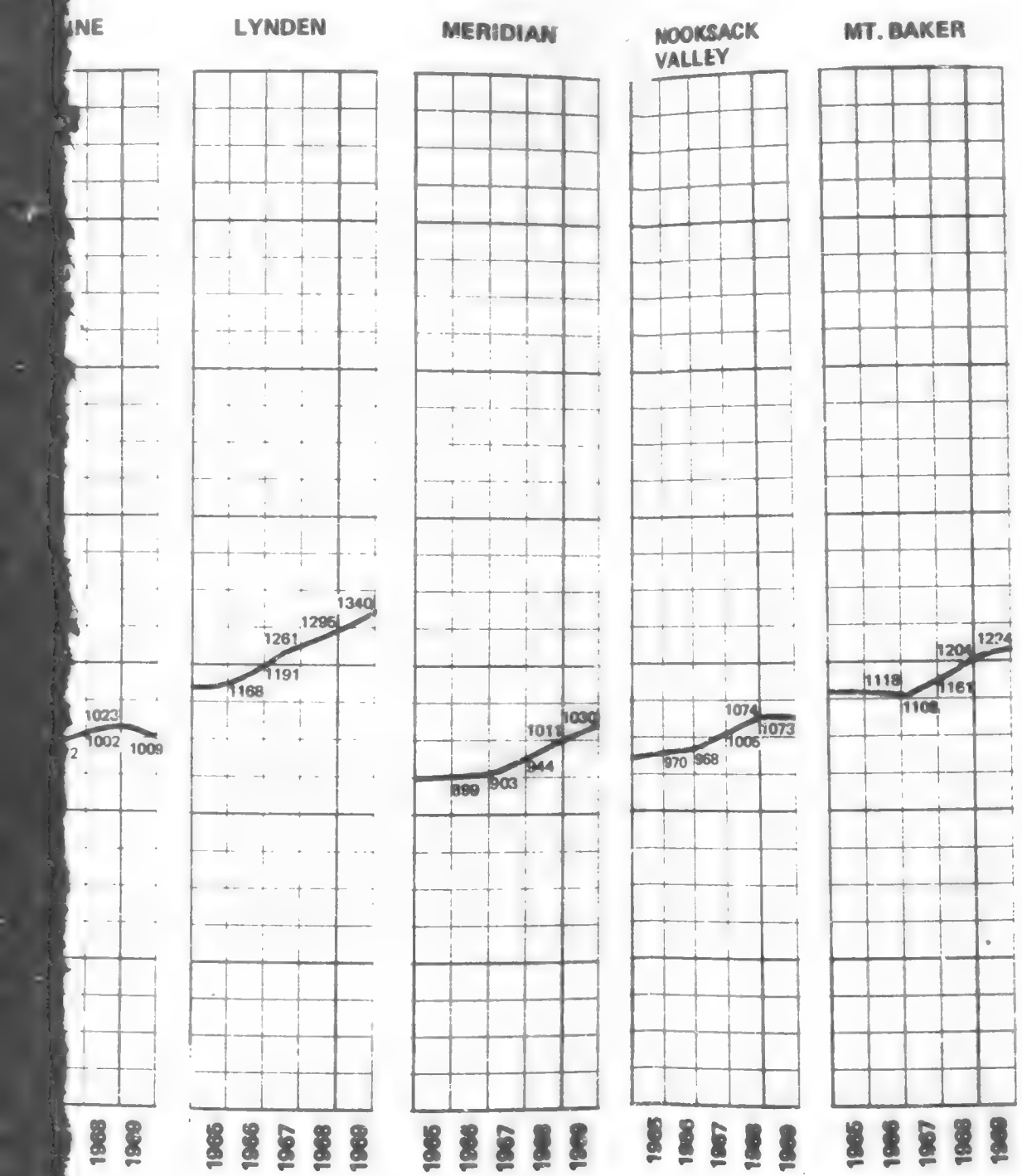
(GRAPH - 11)

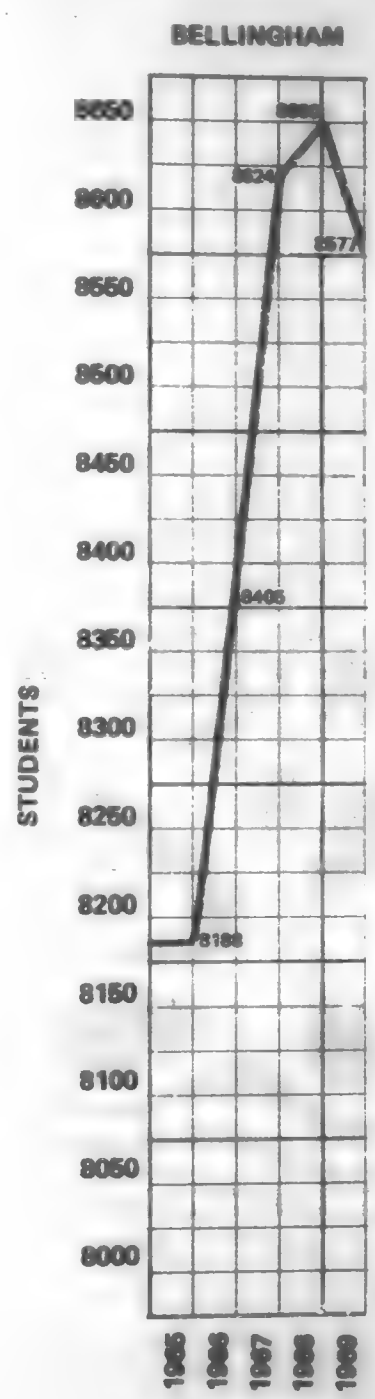
INTALCO - WARRENTON SURVEY

V. Whatcom County School Districts

Graphs 12 - 16


FERNDALE
1965
1966
1967
1968
1969
2118
2172
2312
2466
2664
BLAINE
1965
1966
1967
1968
1969
1009
1002
1023
572
910
LYNDEN
1965
1966
1967
1968
1969
1340
1261
1291
1158
MERIDIAN
1965
1966
1967
1968
1969
1030
1018
944
903
899
NOOKSACK VALLEY
1965
1966
1967
1968
1969
1073
1074
1005
868
870
MT. BAKER
1965
1966
1967
1968
1969
1224
1204
1161
1108
1118
BELLINGHAM
1965
1966
1967
1968
1969
8577
8624
8660
8405
8188
STUDENTS
100
300
500
700
900
1100
1300
1500
1700
1900
2100
2300
2500
2700
8000
8060
8100
8150
8200
8250
8300
8350
8400
8450
8500
8550
8600
8650

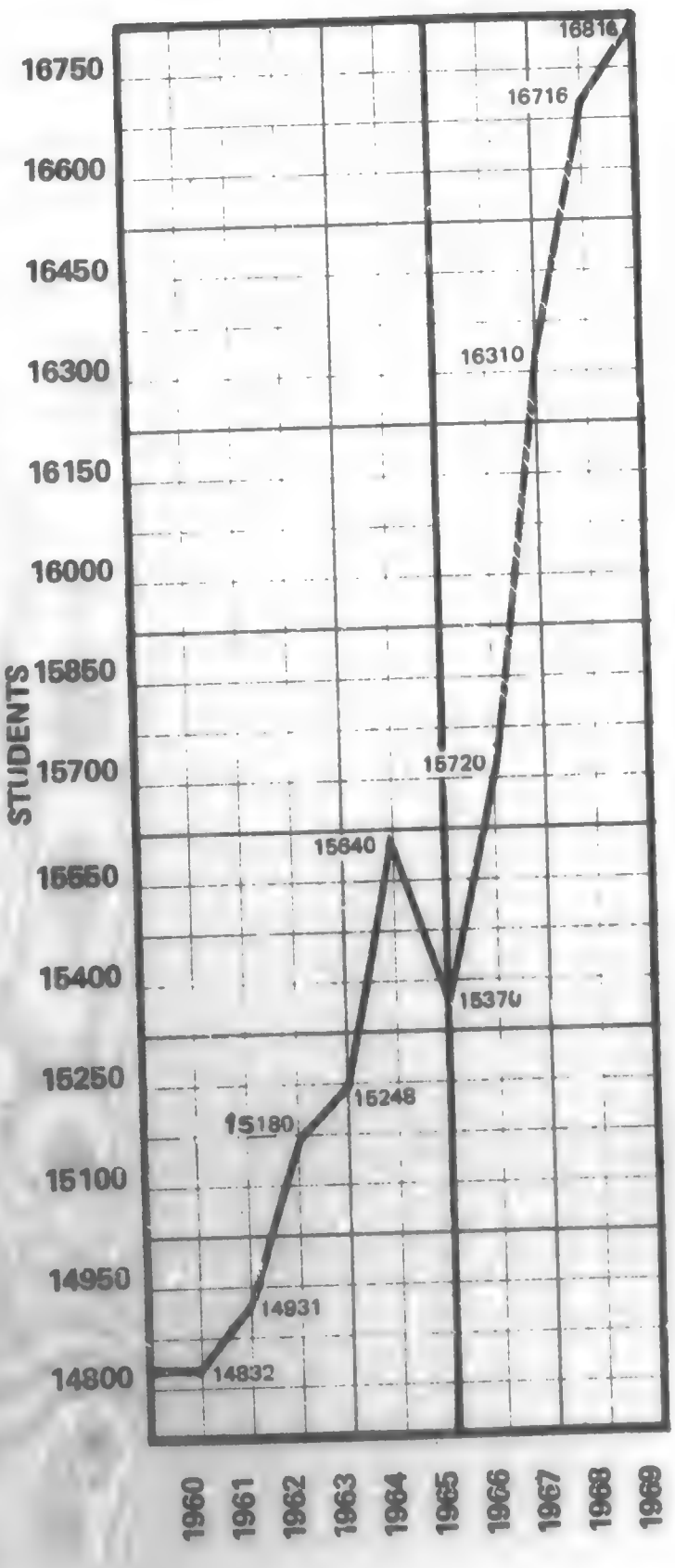




LEGEND: WHATCOM COUNTY SCHOOL DISTRICTS GROWTH PATTERN 1965 - 1969

(GRAPH - 12)

ALL DISTRICTS



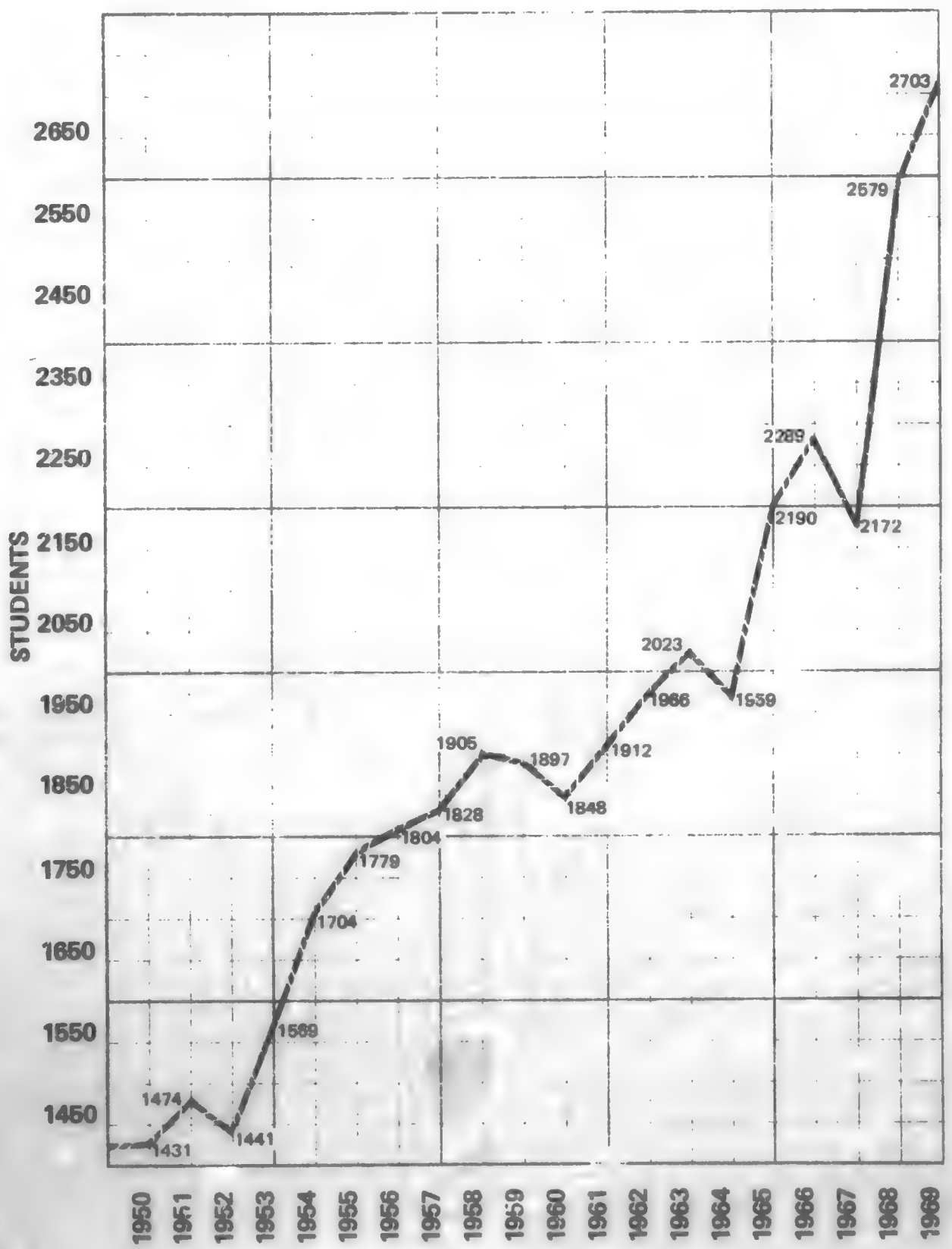
DISTRICT	STUDENT CHANGE	% CHANGE
FERNDALE	+446	21
BLAINE	+ 99	11
LYNDEN	+172	15
MERIDIAN	+131	15
NOOKSACK VALLEY	+103	11
MOUNT BAKER	+106	9
BELLINGHAM	+389	5
ALL DISTRICTS	+1446	9

1965 - 1969

LEGEND:
WHATCOM COUNTY
SCHOOL DISTRICTS
TEN YEAR GROWTH
PATTERN – COMPOSITE
1960 - 1969

(GRAPH - 13)

FERNDALE SCHOOL DISTRICT NUMBER 502

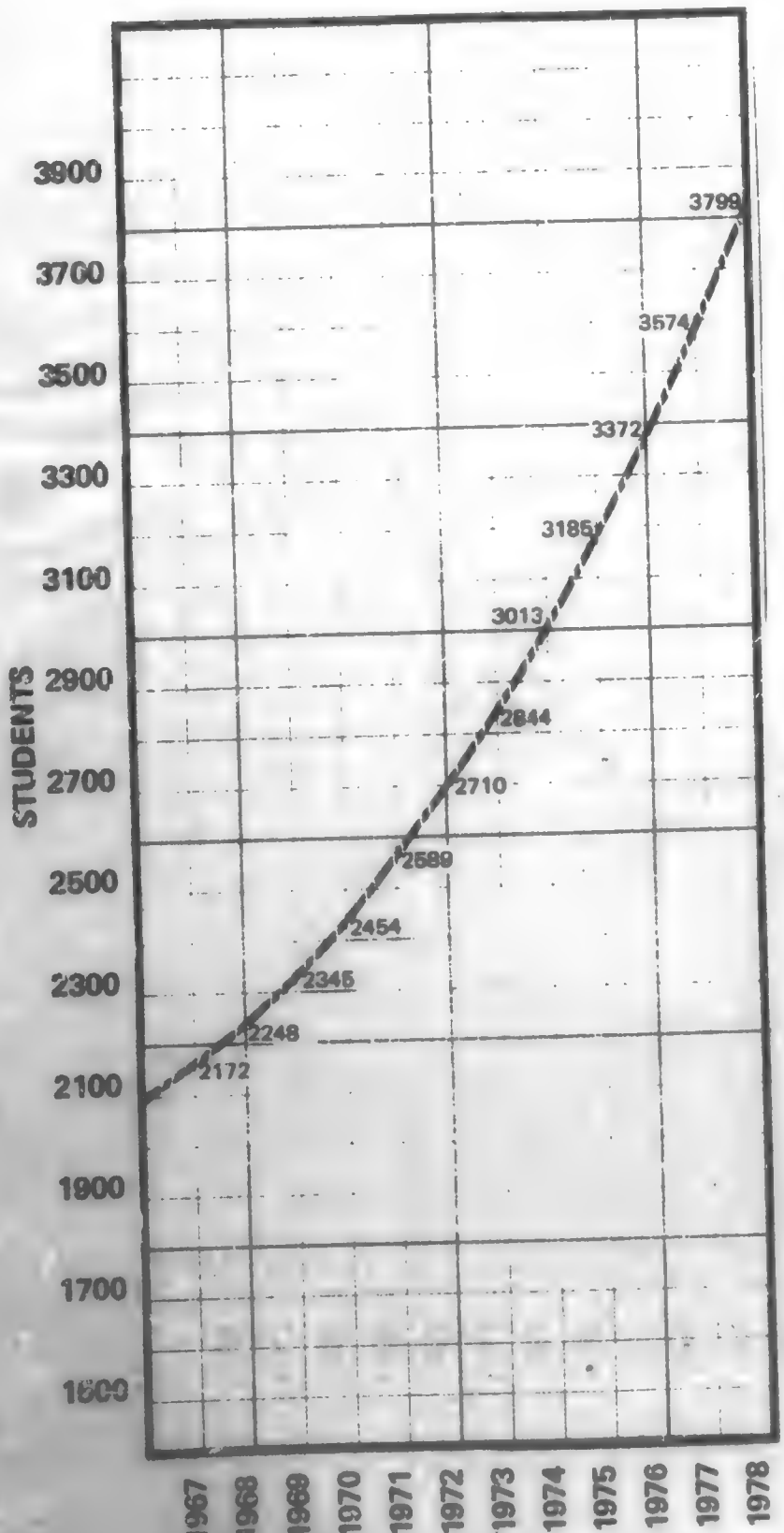


LEGEND: FERNDALE SCHOOL DISTRICT
20 YEAR ENROLLMENT HISTORY
1950 - 1969
STUDENT GAIN = 1372
STUDENT GAIN = % = 89
AVERAGE YEARLY GAIN = 4.45%

NOTE: DIFFERENCES MAY EXIST BETWEEN THIS GRAPH AND GRAPH OF WHATCOM COUNTY SCHOOL DISTRICTS. FIVE YEAR GROWTH PATTERN DUE TO VARIATIONS IN REPORTING PROCEDURES.

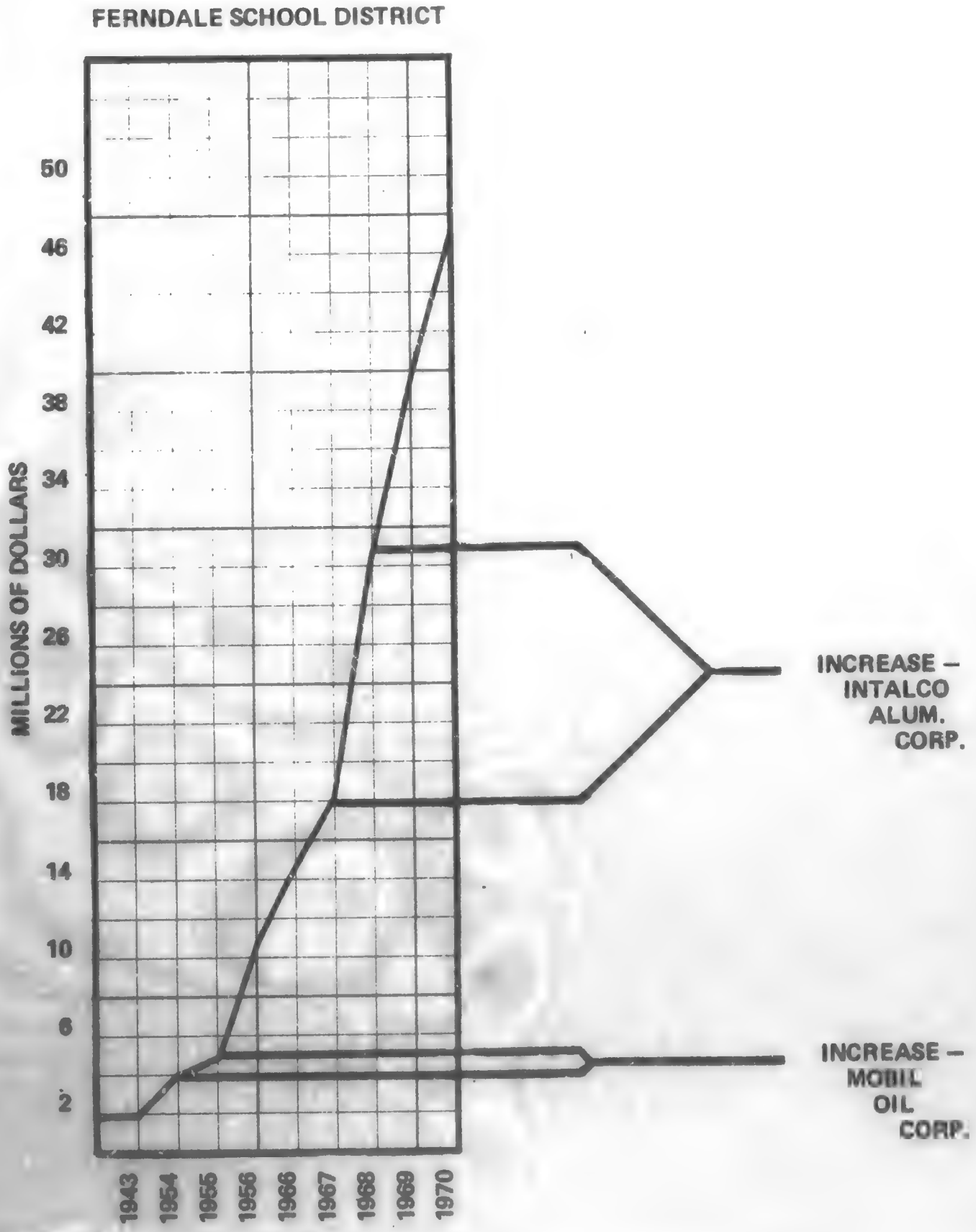
(GRAPH - 14)

FERNDALE SCHOOL DISTRICT



LEGEND: FERNDALE SCHOOL DISTRICT
PROJECTED SCHOOL ENROLLMENT
1967 - 1978

(GRAPH - 15)



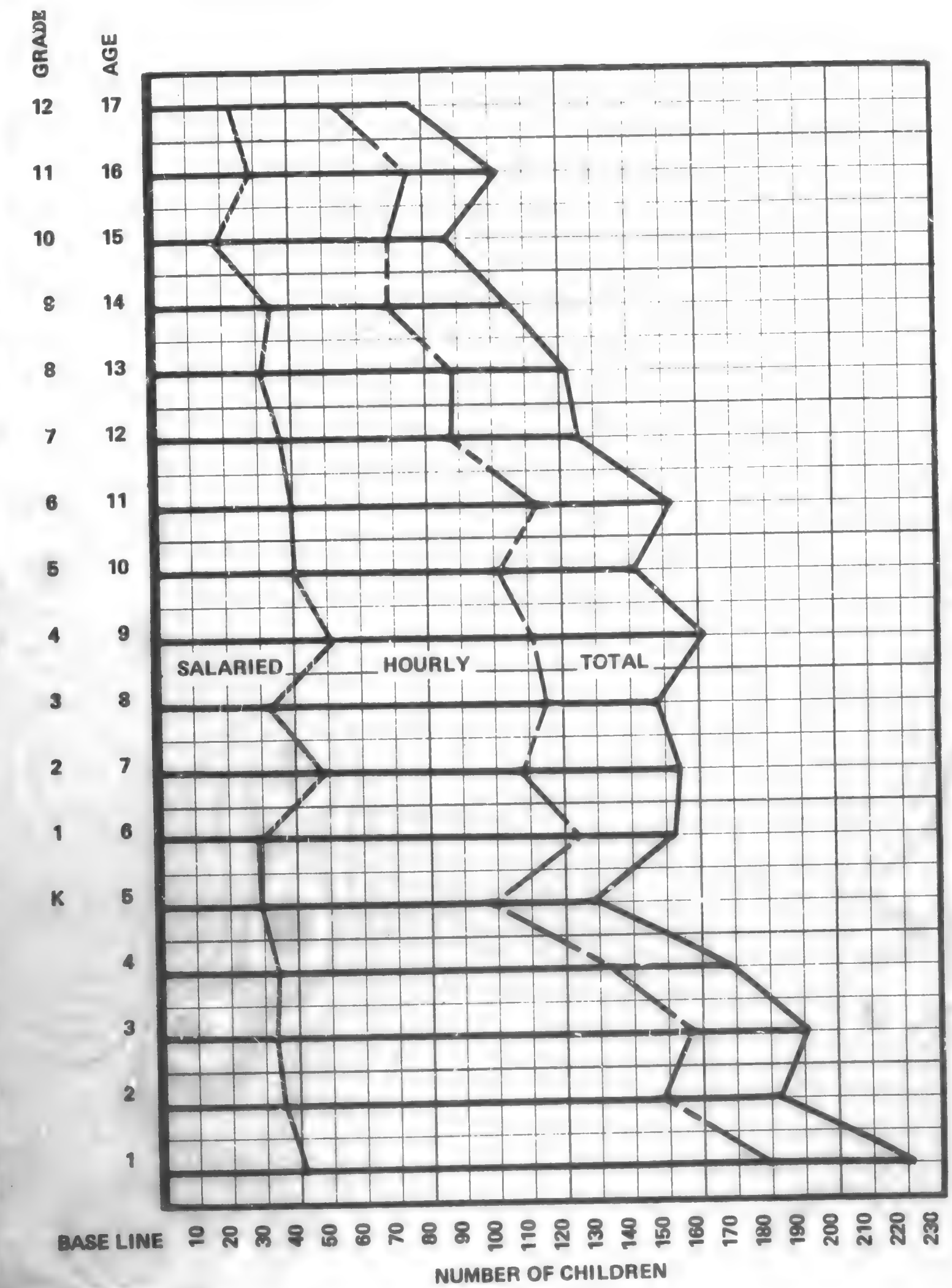
LEGEND: FERNDALE SCHOOL DISTRICT
HISTORY OF ASSESSED
VALUATION IN MILLIONS
OF DOLLARS

(GRAPH - 16)

INTALCO - WARRENTON SURVEY

VI. Intalco Workforce Statistics

Graph 17



LEGEND:
INTALCO CHILDREN BY AGE, SCHOOL GRADE, NUMBER

KEY:
READ EACH GROUP FROM BASE LINE

(GRAPH - 17)

INTALCO - WARRENTON SURVEY

VI. Intalco Workforce Statistics

A. Intalco school age children (ages 5-17) by school grade expressed as a percent

1. Total school age children = 1656

Grade	Number	Percent
K	127	7.7
1	153	9.2
2	154	9.3
3	148	8.9
4	162	9.8
5	142	8.6
6	153	9.2
7	124	7.5
8	122	7.4
9	105	6.3
10	86	5.2
11	103	6.2
12	77	4.6
Total	1656 *	99.9 %

NOTE: Slight differences exist due to rounding.

* Actual employee count

INTALCO - WARRENTON SURVEY

VI. Intalco Workforce Statistics

B. Employee age and dependent statistics by hourly and salaried groups.

Hourly employees (993)

1.	Average age	31 yrs.
2.	Average number of children ages 1-17	1.85
3.	Average number of school age children ages 5-17	1.22
4.	Average number of pre-school children ages 1-4	.62
5.	Average age all children ages 1-17	7.6 yrs.
6.	Average age of school age children ages 5-17	10.3 yrs.
7.	Average age of pre-school children ages 1-4	2.4 yrs.

Salaried employees (313)

1.	Average age	34 yrs.
2.	Average number of children ages 1-17	1.87
3.	Average number of school age children ages 5-17	1.4
4.	Average number of pre-school children ages 1-4	.46
5.	Average age all children ages 1-17	8.6 yrs.
6.	Average age of school age children ages 5-17	10.6 yrs.
7.	Average age of pre-school children ages 1-4	2.4 yrs.

Total salaried and hourly 1306

1.	Average age	31.7 yrs.
2.	Average number of children ages 1-17	1.853
3.	Average number of school age children ages 5-17	1.268
4.	Average number of pre-school children ages 1-4	.585
5.	Average age all children ages 1-17	7.85 yrs.
6.	Average ages of school age children ages 5-17	10.37 yrs.
7.	Average age of pre-school children ages 1-4	2.4 yrs.

The average Intalco family has 1.85 children who are 7.85 years old.

The average Intalco employee marries at: average age less average age of child less one year, or
31.7 - 7.85 - 1 = *22.85 years

* This correlates with the national average which is approximately 23 years.

INTALCO - WARRENTON SURVEY

VI. Intalco Workforce Statistics

C. County population to school population comparison.

County

1. Number of children ages 5-17 in county = 17401
2. Whatcom County general population = 78170
3. Occupied housing units in County = 29,906
4. People per household = 78,170 ÷ 29,906 = 2.613
5. Children 5-17 per household = 17,401 ÷ 29,906 = .581

Intalco Employees

1. Number of children ages 5-17 of Intalco employees = 1656
2. Intalco population = salaried employees 313
   hourly employees 993
   dependent children 2420
   employee's spouse = 1306 X .85 = 1110
   Total Intalco population 4836
3. Occupied housing units of Intalco employees @ 1 per employee = 1306
4. Intalco employees people per household = 4836 ÷ 1306 = 3.7
5. Intalco employees children ages 5-17 per household = 1656 ÷ 1306 = 1.27

Comparison

1. Intalco families % of County households = 0.044
2. Difference: People per household;
   Intalco 3.700
   Whatcom County 2.613
   1.087 persons
3. Difference: Children, ages 5-17 per household=
   Intalco 1.270
   Whatcom County .581
   .789 children
4. Whatcom County population 1960 - 1970
   1960 = 70,317
   1970 = 78,170 Ten year gain = 7853 = 11.2%
   1960 - 1970 Yearly gain = 785.3 = 1.12%
5. Whatcom County school population 1960 - 1970
   1960 = 14,832
   1970 = 17,401 Ten year gain = 2569 = 17.3%
   1960 - 1970 Yearly gain = 256.9 = 1.73%

C. County population to school population comparison.(continued)

6. The above figures indicate:
11.2% ÷ 17.3% = 65% more school age children have entered school than the general population figures indicate.

From the average Intalco family and Whatcom County population the actual figures are:

From each family of the general population .581 school age children can be expected.

From each Intalco family 1.27 school age children can be expected or

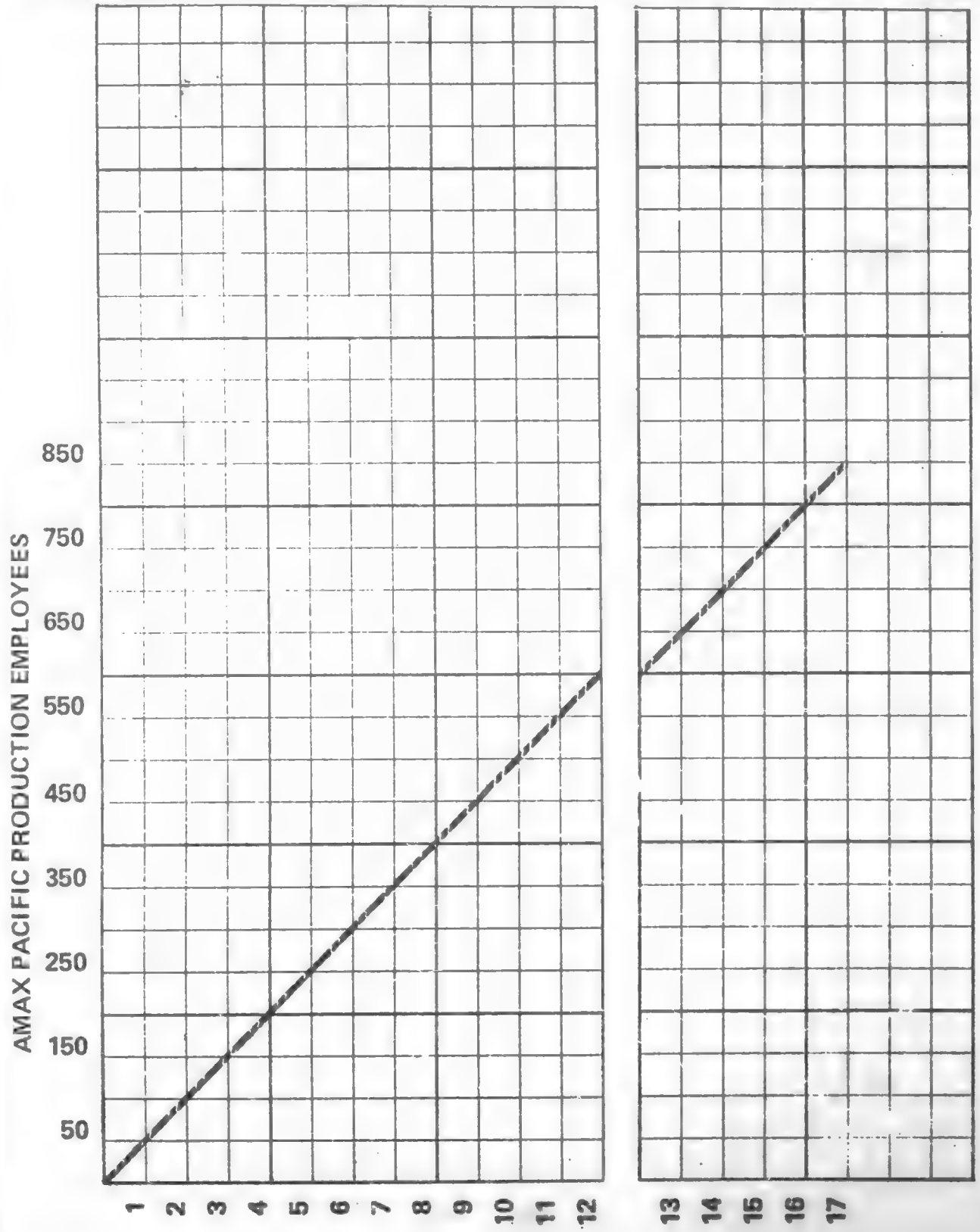
1.27 ÷ .581 = 2.19 times more school age children than the average Whatcom County population or 219%.

INTALCO - WARRENTON SURVEY

VII. Warrenton Hiring Pattern

Graphs 18, 19

PROPOSED HIRING PATTERN – WARRENTON – EMPLOYEE - STUDENT PROJECTION



MONTHS	NUMBER EMPLOYEES X	AVERAGE NUMBER SCHOOL AGE CHILDREN PER EMPLOYEE	= STUDENTS
1	50	1.27	63.5
2	100	"	127.0
3	150	"	190.5
4	200	"	254.0
5	250	"	317.5
6	300	"	381.0
7	350	"	444.5
8	400	"	508.0
9	450	"	571.5
10	500	"	635.0
11	550	"	698.5
12	600	"	762.0
13	650	"	825.5
14	700	"	889.0
15	750	"	952.5
16	800	"	1016.0
17	850	"	1079.5

LEGEND: HIRING PATTERN,
EMPLOYEE STUDENT
PROJECTION

WARRENTON HIRING PATTERN

Legend: Student Projection by Month, Grade, Number

MONTH	PROJ.EMPL.X 1.27 = PROJ. STUDENTS	PER-CENT	7.7	9.2	9.3	8.9	9.8	8.6	9.2	7.5	7.4	6.3	5.2	6.2	4.6
		GRADE	K	1	2	3	4	5	6	7	8	9	10	11	12
1	50	63.5	4.9	5.8	5.9	5.7	6.3	5.5	5.8	4.8	4.7	4.0	3.3	3.9	2.9
2	100	127.0	9.8	11.6	11.8	11.4	12.6	11.0	11.6	9.6	9.4	8.0	6.6	7.8	5.8
3	150	190.5	14.7	17.4	17.7	17.1	18.9	16.5	17.4	14.4	14.1	12.0	9.9	11.7	8.7
4	200	254.0	19.6	23.2	23.6	22.8	25.2	22.0	23.2	19.2	18.8	16.0	13.2	15.6	11.6
5	250	317.5	24.5	29.0	29.5	28.5	31.5	27.5	29.0	24.0	23.5	20.0	16.5	19.5	14.5
6	300	381.0	29.4	34.8	35.4	34.2	37.8	33.0	34.8	28.8	28.2	24.0	19.8	23.4	17.4
7	350	444.5	34.3	40.6	41.3	39.9	44.1	38.5	40.6	33.6	32.9	28.0	23.1	27.3	20.3
8	400	508.0	39.2	46.4	47.2	45.6	50.4	44.0	46.4	38.4	37.6	32.0	26.4	31.2	23.2
9	450	571.5	44.1	52.2	53.1	51.3	56.7	49.5	52.2	43.2	42.3	36.0	29.7	35.1	26.1
10	500	635.0	49.0	58.0	59.0	57.0	63.0	55.0	58.0	48.0	47.0	40.0	33.0	39.0	29.0
11	550	698.5	53.9	63.8	64.9	62.7	69.3	60.5	63.8	52.8	51.7	44.0	36.3	42.9	31.9
12	600	762.0	58.8	69.6	70.8	68.4	75.6	66.0	69.6	57.6	56.4	48.0	39.6	46.8	34.8
13	650	825.5	63.7	75.4	76.7	74.1	81.9	71.5	75.4	62.4	61.1	52.0	42.9	50.7	37.7
14	700	889.0	68.6	81.2	82.6	79.8	88.2	77.0	81.2	67.2	65.8	56.0	46.2	54.6	40.6
15	750	952.5	73.5	87.0	88.5	85.5	94.5	82.5	87.0	72.0	70.5	60.0	49.5	58.5	43.5
16	800	1016.0	78.4	92.8	94.4	91.2	100.8	88.0	92.8	76.8	75.2	64.0	52.8	62.4	46.4
17	850	1079.5	83.3	98.6	100.3	96.9	107.1	93.5	98.6	81.6	79.9	68.0	56.1	66.3	49.3

NOTE: Descending figures are cumulative

INTALCO - WARRENTON SURVEY

VIII. Significant factors in school growth pattern.

A. The large construction work force (1500+) during construction periods resulted in student gains of 2.3% county wide. Individual small districts (1000-2000 students) ranged as high as 8% while the largest district (8000 students) tended to range close to the county average.

B. Many construction workers tend to commute from larger metropolitan areas or live in the area without their families.

C. People moving in tended to settle where there was housing or trailer courts, then move as more suitable housing became available. i.e. Bellingham to county school districts.

D. The Intalco plant operating personnel force tended to balance off the construction force as the plant became operational with noted gains in workers who became residents.

E. The initial impact of the operating force was significant in the primary school children due to the young work force.

Ferndale School District #502
March 31, 1971

IX INTALCO EMPLOYEES - AREA FROM WHICH LOCATED

The following information indicates the locale from which an individual completed high school or left school. It does not necessarily mean that an individual did not pursue his education. It is only intended as a reference point to show from what areas the Intalco workforce was drawn.

Hourly

Whatcom County

Bellingham School District		196
Ferndale School District		102
Lynden School District		37
Blaine School District		31
Meridian School District		27
Mt. Baker School District		21
Nooksack School District		15
	TOTAL	429
Out of county but in Washington State		222
	TOTAL WASHINGTON STATE	651
Out of Washington State		339
	TOTAL HOURLY	990

Salaried

Whatcom County

Bellingham School District	68
Ferndale School District	31
Lynden School District	7
Blaine School District	9
Meridian School District	5
Mt. Baker School District	7
Nooksack School District	6

TOTAL	133
Out of County but in Washington State	74
TOTAL WASHINGTON STATE	207
Out of Washington State	82
TOTAL SALARIED	289

Hourly and Salaried (Total Employees)

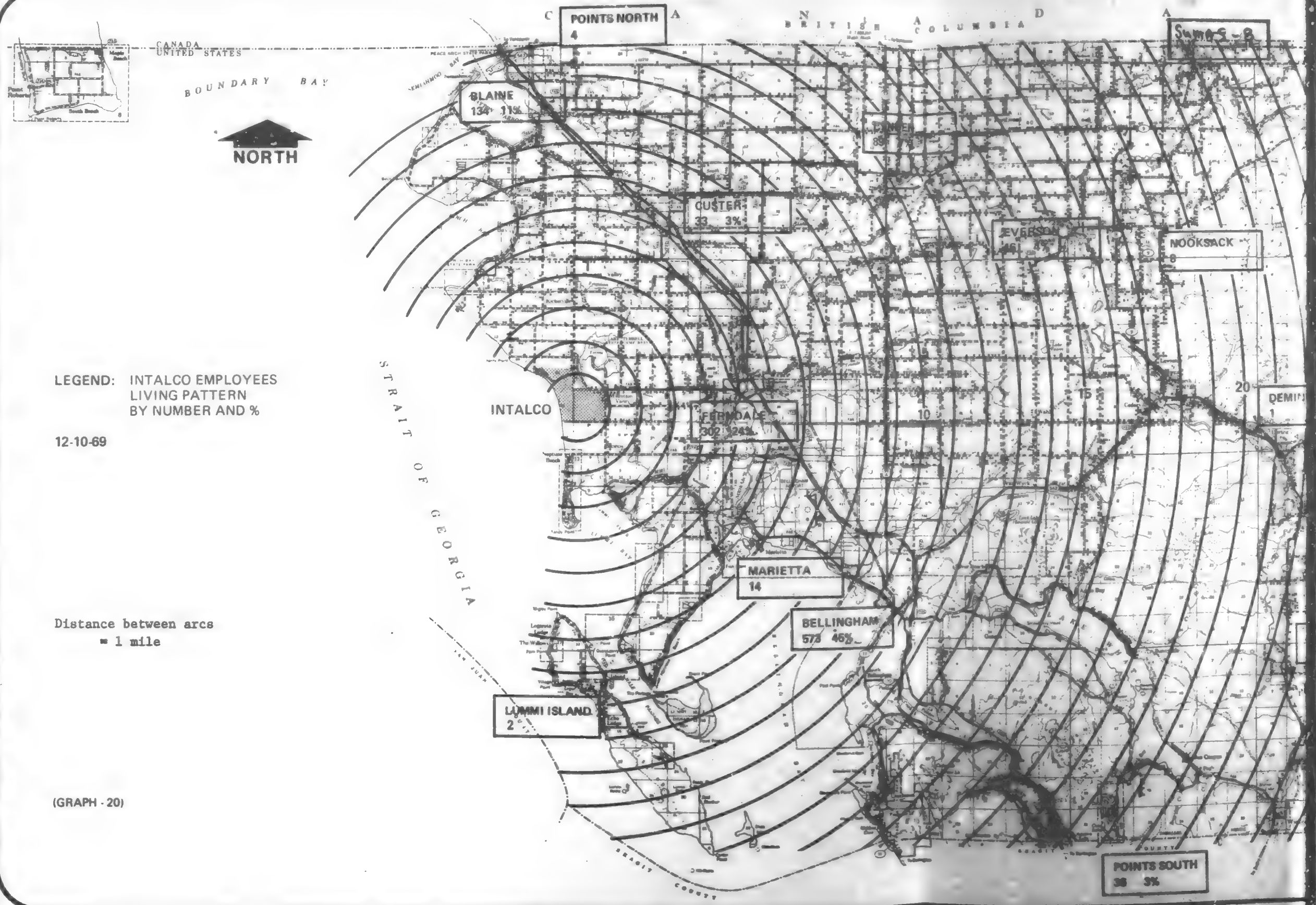
Whatcom County

Bellingham School District	264
Ferndale School District	133
Lynden School District	44
Blaine School District	40
Meridian School District	32
Mt. Baker School District	28
Nooksack School District	21
TOTAL	562
Out of County but in Washington State	296
TOTAL WASHINGTON STATE	858
Out of Washington State	421
TOTAL SALARIED AND HOURLY	1,279
EMPLOYEES - WHATCOM COUNTY	44%
EMPLOYEES - WASHINGTON STATE	67%

INTALCO - WARRENTON SURVEY

X. Intalco Employees' Living Pattern

Graph 20

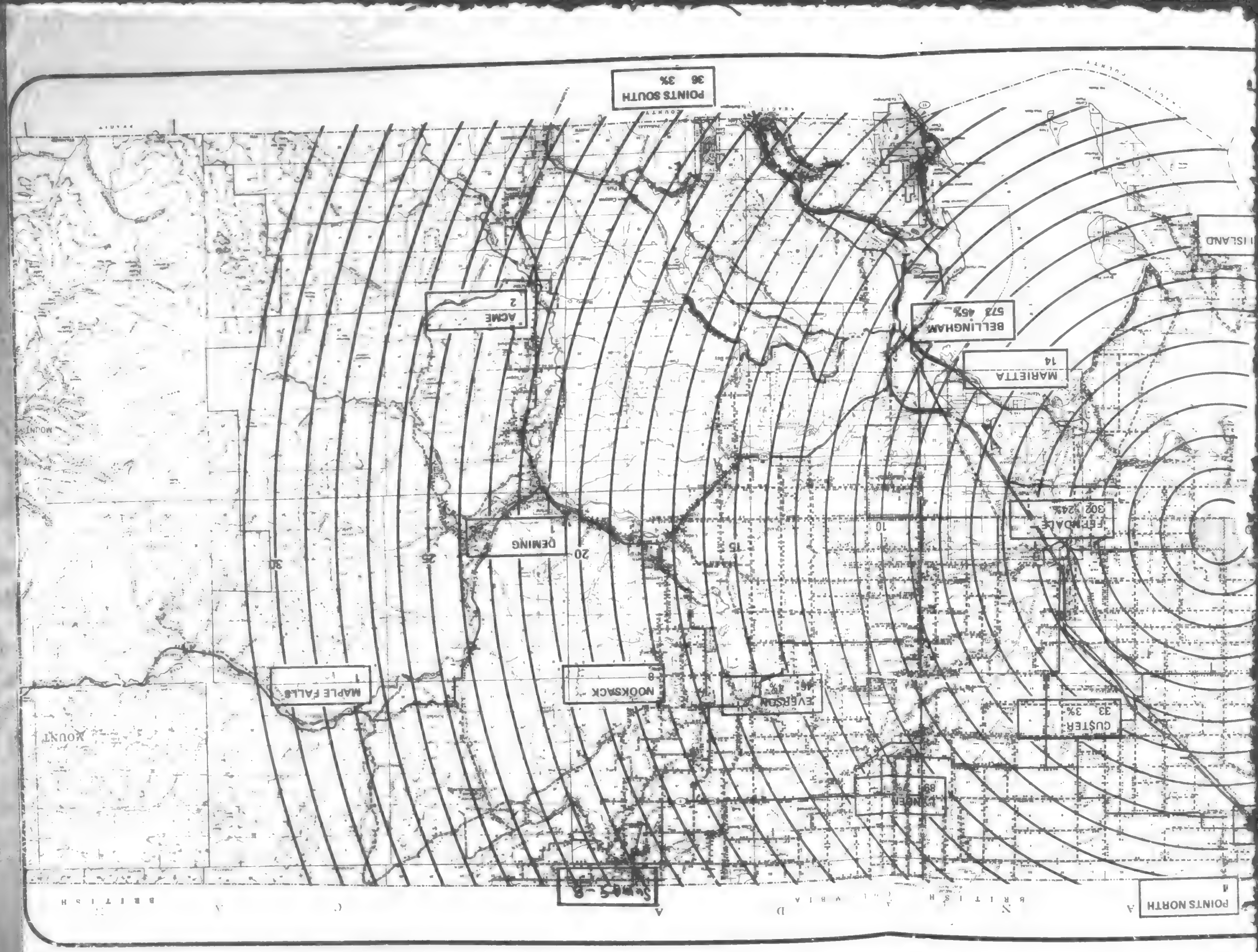


LEGEND: INTALCO EMPLOYEES
LIVING PATTERN
BY NUMBER AND %

12-10-69

Distance between arcs
= 1 mile

(GRAPH - 20)


POINTS SOUTH
36 3%
ACME
2
DEMING
1
MAPLE FALLS
1
NOOKSACK
8
EVERSON
4
BELLINGHAM
573 45%
MARIETTA
14
FERNDALE
302 24%
CUSTER
33 3%
POINTS NORTH
4

XI. Acknowledgements - The following sources are gratefully acknowledged for their assistance and contributions.

A. Office of the County Superintendent of Schools
Whatcom County, Washington

B. Office of the Superintendent of Ferndale School District #502
Ferndale, Washington

C. Employment Security Department of the Washington State
Department of Labor and Industries
Whatcom County, Washington

E

IMPACT OF A MAJOR ECONOMIC CHANGE ON A COASTAL RURAL ECONOMY: A LARGE ALUMINUM PLANT IN CLATSOP COUNTY, OREGON [1/]

Theodore Collin
Russell Youmans
Herbert Stoevener

Introduction

When industrialization occurs in a rural area, many aspects of the community may change. Such change affects various segments of the community differently. The controversy which often accompanies industrialization can be explained by the differential impact associated with the change. In this study some aspects of the economic portion of the overall impact are considered. A framework is provided through which the economic stress resulting from change can be traced and analyzed.

The basic idea of the study is simple: a descriptive model of the community's economy is utilized to appraise economic change. Representative businessmen are asked, "How much and to whom do you sell?" The sales include those to households, other businesses, local governments, schools, service organizations, and sales outside the local area. In short, an attempt is made to capture information on all the business transactions within the community during the period of one year. Given

1/ This publication is supported jointly by the National Oceanic and Atmospheric Administration (maintained by the U. S. Department of Commerce), Institutional Sea Grant 2-35187 and the Agricultural Experiment Station at Oregon State University. The authors would like to thank Mr. Jack Wood, then Extension Agent in Clatsop County, Mr. Jean Hallaux, Manager of the Astoria Chamber of Commerce, Dr. Edward W. Harvey, Administrator, Otter Trawl Commission of Oregon, and the many people in Clatsop County who participated in the study for their most important assistance. Responsibility for the study remains with the authors.

this information, it is possible to follow the changes in sales, regardless of their origin, throughout the local economy. In this manner the economic impact, and perhaps more importantly, the distribution of impact in the local community, can be measured. The distribution of the impact, whether negative or positive, is important as it has an influence on the acceptance or rejection by various segments of the community of the change being considered.

Anticipated Economic Impact

The economic change in the community analyzed in this study involved the addition of a large industrial plant in a coastal rural economy, specifically the potential construction of a large aluminum manufacturing plant in Clatsop County.[2/] Detailed sales information was collected from local businesses in Clatsop County for 1968. On the basis of this and other information, a model was constructed by which the economic impact of the plant on the Clatsop County economy could be estimated. More detailed information about the nature of the plant and its business relationships with the rest of the local economy was obtained from local people working with the industrial development and from plant officials. Briefly the following direct economic impacts were assumed: The aluminum plant would purchase labor, some materials, and services within the local community as well as pay local taxes. The major expense items were: $6,000,000 in annual payroll, $8,288,000 for locally provided goods and services, and $1,427,000 to local governments in taxes.

The above items represent direct expenditures of the new plant within the community; the total effect of these expenditures is greater and more widely distributed throughout the local economy. Certainly some of the income is respent locally and gives rise to additional economic activity in the community. Thus the total effect from a $6,000,000 payroll was estimated to amount to $9,000,000. Likewise, the

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2/ The plant considered in this study is not the AMAX plant contemplated at the time of publication but that of Northwest Aluminum Inc. with data collected early in 1969.

$8,250,000 in increased direct local business sales to the proposed aluminum plant amount to $9,500,000 when all additional business is included. Furthermore, under the existing tax structure the total tax increase would amount to $1,594,000 compared to the $1,427,000 cited above.

The total effect of the anticipated economic impact from the plant is estimated to be $11,183,000 in the Clatsop County economy. This would represent an increase of $1,470,000 over the local direct purchases made by the proposed new industry.

Study Setting

Clatsop County is the extreme northwestern county in Oregon. It is geographically isolated from the Portland metropolitan area. Business and social activity of the county for the most part is conducted along the Columbia River, down the Pacific coast, and inland a short distance along main waterways. The County is well situated for a number of natural resource-based economic activities. Timber production utilizes the rough mountainous inland areas where the average annual rainfall exceeds 70 inches and cool moderate temperatures (average 51°) prevail. The County experiences high yields of good quality timber. Fishing and the processing of seafoods are major industries. Livestock, mink, dairy, and horticultural crops are the main sources of agricultural income. The natural setting makes the area very attractive for recreational use and a number of excellent recreational facilities are located in the county. Ninety percent of the County land is occupied by forests, 8 percent by farmland, 2 percent by recreational areas, towns, roads, and wastelands.

Estimates from the study indicate that in 1968 the businesses in the County sold $255,410,000 worth of goods and services. Expenditures of the local government added another $9,156,000 to the economic activity in the county. The distribution of the commercial portion of this economic activity is portrayed in Table 1. Lumber and fish processing are the most important industries in terms of sales. By combining some

Table 1. Sales from Clatsop County businesses during 1968, by sector

	Sector [1/]	Sector output in dollars
[1]	Lumber	$ 60,565,000
[2]	Commercial fishing	3,567,000
[3]	Fish processing	39,786,000
[4]	Agriculture	3,800,000
[5]	Manufacturing	7,126,000
[6]	Lodging	7,597,000
[7]	Cafes and taverns	6,394,000
[8]	Service stations	6,593,000
[9]	Automotive sales and service	9,577,000
[10]	Communication and transportation	13,722,000
[11]	Professional services	7,453,000
[12]	Financial services	7,875,000
[13]	Construction	18,669,000
[14]	Retail and wholesale trade	45,396,000
[15]	Retail services and organizations	16,234,000
[16]	Port authority	1,056,000
	TOTAL	$ 255,410,000

1/ Sectors are defined in Appendix A.

of those sectors which are the primary beneficiaries of expenditures made by recreationists (restaurants, lodging, service stations, for example) this aggregate business becomes a sizeable portion of the total County business. Agricultural and commercial fishing activities are important but they are not large sectors when compared to lumber and fish processing. Retail and wholesale businesses of the County account for a large portion of economic activity, $45.4 million. The number of businesses in the County is reported in Table 2 along with the number in each sector sampled in the study.

Before proceeding to further analyze the structure of this economy, one might look at the total worth of the assets of the community. This can only roughly be done, but again it is helpful in analyzing the magnitude of the proposed changes. The total assessed valuation on Clatsop County tax rolls as of July 1, 1968, was $314,090,969. Total ad valorem revenue was $6,733,633.28, composed of $5,418,667.83 from real property, $728,659.28 from personal property, and $586,316.17 from utilities (Clatsop County, County Assessor, 1968). The proposed plant, assumed to have an appraised value of $150,000,000, would certainly be a major addition to County wealth.

Business Transactions

Table 3 is called the Transactions Matrix. It shows the dollar amounts of actual sales or purchases (transactions) made by the various sectors in the Clatsop County economy. It contains all the information utilized in studying the economy. Included are the business sectors, sectors consisting of local government and finally the sectors that make up final demand. Final demand consists of the households of the community, business and government outside of the county, also those expenditures related to maintaining or expanding the capital stock of the local economy (depreciation and investment). When reading Table 3, it should be noted that all sectors are recorded twice, once across the top and again down the side. By reading down a column from a sector listed across the top, one can see where that sector made its purchases and how

Table 2. Number of firms by sector in the Clatsop County economy, 1968

	Sector	Number of firms	
		Total in the county	Included in sample
[1]	Lumber	19	7
[2]	Commercial fishing	316	64
[3]	Fish processing	13	4
[4]	Agriculture	61	12
[5]	Manufacturing	11	3
[6]	Lodging	236	54
[7]	Cafes and taverns	95	25
[8]	Service stations	69	16
[9]	Automotive sales & service	57	14
[10]	Communication & transportation	35	11
[11]	Professional services	80	19
[12]	Financial services	13	6
[13]	Construction	111	31
[14]	Retail & wholesale trade	271	70
[15]	Retail services and organizations	431	99
	TOTAL	1818	435

Table 3. Sales and purchases by sector in thousands of dollars, transactions matrix, Clatsop County, 1968

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]
[1] Lumber	4,617,	0	0	0	0	0	0	0	0	175,	0	0	120,	0	0	4,	0	0	0	0	0	0	*	*	0
[2] Commercial fishing	0	10,	2,618,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	0	0
[3] Fish processing	0	0	25,	0	6,	0	0	0	0	0	0	2,	0	53,	0	2,	0	0	0	0	0	0	*	0	0
[4] Agriculture	0	0	0	45,	910,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[5] Manufacturing	0	0	1,712,	0	0	0	0	0	0	0	0	0	0	0	69,	2,	0	0	0	0	0	0	1,	4,	0
[6] Lodging	0	0	0	0	0	0	0	0	0	0	0	5,	0	0	85,	0	0	0	0	0	0	*	23,	0	0
[7] Cafes & taverns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1,	*	0	*	0	0	*	3,	0	*
[8] Service stations	429,	200,	0	129,	96,	0	0	73,	18,	85,	18,	0	32,	27,	27,	9,	55,	17,	1,	1,	0	4,	11,	2,	0
[9] Automotive sales and service	85,	83,	96,	14,	103,	23,	2,	44,	31,	77,	77,	15,	128,	42,	42,	4,	64,	44,	0	0	0	*	8,	5,	0
[10] Communication & transportation	1,856,	146,	1,623,	1,047,	745,	697,	154,	190,	294,	210,	131,	154,	169,	604,	189,	2,	38,	0	4,	2,	2,	26,	10,	1,	0
[11] Professional services	1,124,	129,	12,	4,	4,	2,	27,	7,	7,	2,	39,	27,	14,	22,	20,	18,	21,	19,	6,	0	210,	11,	14,	4,	*
[12] Financial services	653,	11,	432,	137,	163,	12,	5,	6,	572,	0	6,	34,	193,	100,	166,	7,	0	0	0	0	0	0	0	0	0
[13] Construction	28,	4,	103,	15,	57,	27,	333,	13,	42,	39,	101,	79,	831,	72,	47,	105,	138,	104,	*	*	0	6,	68,	53,	12,
[14] Retail & wholesale trade	2,207,	174,	699,	649,	345,	665,	706,	1,123,	269,	199,	217,	181,	348,	1,360,	168,	40,	423,	32,	11,	4,	17,	37,	93,	15,	3,
[15] Retail services & organizations	416,	315,	217,	170,	42,	965,	340,	143,	163,	21,	257,	69,	137,	1,130,	248,	3,	110,	6,	5,	0	38,	11,	76,	6,	1,
[16] Port authority	36,	*	2,	2,	1,	5,	1,	*	*	22,	*	10,	1,	10,	3,	0	0	0	0	0	0	0	*	0	0
Σ_{1-16}	11,451,	1,072,	9,539,	2,212,	2,472,	2,296,	1,568,	1,599,	1,396,	830,	846,	576,	1,973,	3,420,	1,064,	199,	949,	227,	27,	7,	267,	95,	307,	90,	16,
[17] Education	1,303,	17,	79,	64,	25,	208,	31,	9,	16,	321,	15,	24,	38,	390,	115,	0	70,	0	0	0	0	*	2,	1,	0
[18] County roads	61,	1,	3,	3,	1,	9,	1,	*	1,	14,	1,	1,	2,	17,	5,	0	0	0	0	0	0	0	*	0	0
[19] Law enforcement	74,	1,	4,	3,	1,	11,	2,	*	1,	17,	1,	1,	2,	20,	6,	0	0	0	0	0	0	0	*	0	0
[20] Health department	28,	*	1,	1,	*	4,	1,	*	*	6,	*	*	1,	8,	2,	0	0	0	0	0	0	*	0	0	0
[21] Welfare	187,	2,	9,	8,	3,	27,	4,	1,	2,	42,	2,	3,	5,	51,	15,	0	0	0	0	0	0	0	0	0	0
[22] General fund	167,	2,	8,	7,	3,	24,	4,	1,	2,	38,	2,	12,	4,	46,	14,	7,	0	0	0	0	0	2,	0	*	0
[23] City of Astoria	12,	0	25,	0	15,	11,	5,	14,	7,	15,	7,	4,	4,	148,	27,	3,	0	0	0	0	0	0	57,	0	0
[24] City of Warrenton	0	0	5,	*	0	1,	1,	1,	0	2,	*	1,	*	34,	6,	3,	0	0	0	0	0	0	*	0	*
[25] Town of Wauna	0	0	5	0	0	*	*	*	0	*	0	0	*	1,	*	0	0	0	0	0	0	0	0	0	0
[26] City of Gearhart	0	0	0	0	0	10,	0	*	0	*	*	0	0	3,	*	0	0	0	0	0	0	0	0	0	0
[27] City of Seaside	0	*	*	0	*	60,	10,	6,	3,	6,	3,	3,	2,	70,	12,	0	0	0	0	0	0	0	0	0	0
[28] City of Cannon Beach	0	0	0	0	0	18,	*	*	0	*	*	0	*	7,	*	0	0	0	0	0	0	0	0	0	0
Σ_{17-28}	1,832,	23,	130,	86,	48,	433,	61,	32,	32,	461,	31,	49,	58,	795,	202,	13,	70,	0	0	0	0	2,	59,	1,	*
[29] Household	8,828,	1,495,	3,485,	675,	435,	1,789,	1,885,	741,	1,480,	2,858,	3,106,	1,416,	4,848,	7,772,	6,474,	452,	3,379,	197,	177,	74,	499,	338,	665,	59,	7,
[30] Government	6,142,	282,	1,600,	143,	34,	238,	257,	152,	210,	1,425,	781,	543,	738,	1,648,	752,	0	0	18,	*	6,	0	17,	18,	1,	1,
[31] Imports	25,470,	480,	24,505,	225,	3,377,	1,774,	2,424,	3,940,	6,334,	6,792,	2,530,	5,225,	10,462,	30,384,	7,176,	392,	723,	0	25,	0	0	82,	271,	11,	3,
[32] Depreciation & inventory	6,839,	214,	529,	456,	755,	1,066,	201,	148,	108,	1,356,	159,	66,	593,	1,378,	569,	0	0	0	0	0	0	0	0	0	0
[33] Total inputs*	60,565,	3,567,	39,786,	3,800,	7,121,	7,597,	6,394,	6,593,	9,577,	13,722,	7,453,	7,875,	18,669,	45,396,	16,234,	1,056,	5,013,	444,	229,	84,	767,	533,	1,322,	163,	27,

* May not add due to rounding.

[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	Evaporation	Capital formation & investment	Total expenses
0	0	175,	□	0	120,	0	0	4,	0	0	0	0	0	0	0	*	*	0	*	44,	852,	54,655,	98,	60,565,	[1]
0	0	□	□	0	0	0	53,	0	0	0	0	0	0	0	0	0	0	0	0	17,	0	922,	0	3,567,	[2]
0	0	□	□	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	393,	3,080,	35,809,	336,	39,766,	[3]
0	0	■	□	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	126,	0	2,651,	66,	3,000,	[4]
0	0	0	0	0	0	0	0	69,	2,	0	0	0	0	0	0	0	0	0	1,	4,	0	2,934,	43,	7,126,	[5]
0	0	0	0	0	0	85,	0	0	0	0	0	0	0	0	0	0	0	0	23,	0	0	203,	5,	7,597,	[6]
0	0	0	0	0	0	0	0	1,	*	0	0	0	0	0	0	0	0	*	3,	0	0	*	106,	6,394,	[7]
73,	19,	85,	18,	0	32,	27,	27,	9,	55,	17,	1,	0	1,	1,	0	4,	11,	2,	0	1,	4,	1,	95,	6,393,	[8]
44,	31,	77,	77,	15,	128,	42,	42,	4,	64,	49,	0	0	0	*	8,	5,	0	2,	9,	2,	7,510,	162,	331,	547,	9,577,	[9]
190,	294,	210,	131,	154,	169,	604,	189,	2,	38,	0	4,	2,	2,	26,	10,	1,	0	1,	2,	*	3,764,	246,	1,395,	20,	13,722,	[10]
7,	7,	2,	39,	27,	14,	22,	20,	18,	21,	19,	6,	0	210,	11,	14,	4,	2,	*	31,	3,	3,167,	375,	2,106,	26,	7,453,	[11]
6,	572,	0	6,	34,	193,	100,	166,	7,	0	0	0	0	0	0	1,	0	*	0	26,	56,	2,790,	0,	2,383,	4,	7,075,	[12]
13,	42,	39,	101,	79,	831,	72,	47,	105,	138,	104,	*	*	0	6,	68,	53,	12,	17,	26,	56,	3,173,	442,	11,028,	850,	18,669,	[13]
1,123,	269,	199,	217,	181,	348,	1,360,	164,	40,	423,	32,	11,	4,	17,	37,	93,	15,	3,	9,	35,	6,	24,802,	548,	9,241,	770,	45,596,	[14]
263,	163,	21,	257,	69,	137,	1,130,	248,	7,	110,	6,	5,	0	38,	11,	76,	6,	1,	3,	11,	*	10,711,	168,	483,	69,	16,234,	[15]
*	22,	*	10,	1,	10,	3,	0	0	0	0	0	0	*	0	0	0	0	0	0	0	31,	0	932,	0	1,056,	[16]
1,599,	1,396,	830,	846,	576,	1,973,	3,420,	1,064,	199,	949,	227,	27,	7,	267,	95,	307,	90,	16,	35,	118,	69,	75,603,	5,920,	126,230,	3,037,	255,410,	Σ_{1-16}
0,	16,	321,	15,	24,	38,	390,	115,	0	70,	9	0	0	0	*	2,	1,	0	0	0	0	1,256,	1,038,	0	0	5,013,	[17]
*	1,	14,	1,	1,	2,	17,	5,	0	0	0	0	0	0	0	0	0	0	0	0	0	82,	262,	0	0	444,	[18]
*	*	17,	1,	1,	2,	20,	6,	0	0	0	0	0	0	0	*	0	0	0	*	0	85,	0	0	0	229,	[19]
*	1,	6,	*	*	1,	8,	2,	0	0	0	0	0	0	*	0	0	0	0	0	0	32,	0	0	0	86,	[20]
1,	2,	42,	2,	3,	5,	51,	15,	0	0	0	0	0	0	0	0	0	0	0	0	0	165,	238,	0	0	766,	[21]
1,	2,	38,	2,	12,	4,	46,	14,	7,	0	0	0	0	0	2,	0	*	0	*	*	148,	0	42,	0	0	533,	[22]
14,	7,	15,	7,	4,	4,	148,	27,	3,	0	0	0	0	0	0	57,	0	0	0	0	761,	157,	0	0	1,322,	[23]
1,	0	2,	*	1,	*	36,	6,	3,	0	0	0	0	0	0	*	0	*	7,	0	0	75,	27,	0	163,	[24]
*	0	0	0	0	*	1,	*	0	0	0	0	0	0	0	0	0	0	■	0	0	5,	8,	8,	27,	[25]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[26]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[27]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[28]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[29]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[30]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[31]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[32]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[33]

[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	[30]	[31]	[32]	[33]
6,593,	9,577,	13,722,	7,453,	7,875,	18,669,	45,396,	16,234,	1,056,	5,013,	444,	229,	84,	767,	533,	1,322,	163,	27,	82,	341,	104,	78,995,	7,701,	126,385,	15,967,	493,028,	[33]
128,	108,	1,356,	159,	66,	593,	1,328,	569,	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14,417,	[32]
1,940,	6,334,	6,792,	2,530,	5,225,	10,462,	30,384,	7,176,	392,	723,	0	25,	0	82,	271,	11,	3,	14,	55,	22,	0	0	0	0	12,390,	145,286,	[31]
152,	230,	1,425,	781,	543,	738,	1,648,	752,	0	0	18,	*	6,	0	17,	18,	1,	*	1,	0	0	0	0	0	0	15,027,	[30]
741,	1,480,	2,858,	3,106,	1,416,	4,848,	7,772,	6,474,	452,	3,379,	197,	177,	74,	499,	338,	665,	59,	7,	27,	217,	13,	2,792,	1,	2,	78,395,	7,701,	126,385,	15,967,	493,028,	[33]

much was spent for goods and services produced by the various sectors listed on the left. As an example, manufacturing bought nothing from lumber or commercial fishing, purchased $6,000 of inputs from fish processing and $910,000 from agriculture. The manufacturing sector reported no direct purchases from the cafes and taverns or lodging sectors. However, there were purchases of goods or services from most of the remaining sectors.

The subtotal of business purchases among the commercial businesses in the County is noted (Σ_{1-16}) after the first sixteen rows in Table 3. The total purchases from local businesses by manufacturing amounted to $2,472,000. The entries in rows 17 to 28 indicate the uses made of the total tax payments by a sector. The sum (Σ_{17-28}) after line 28 shows an approximation of local taxes paid by manufacturing with a total of $48,000. Below the heavy line are the sectors considered outside the local economy. Here $435,000 went to households in the form of wages, profit, interest, royalties, or rent. An additional $34,000 was paid in state and federal taxes. A large amount ($3,377,000) was spent outside the local economy, primarily to purchase raw materials imported for manufacturing. Finally, manufacturers spent $755,000 to maintain or expand their operations. The total expenditures by the manufacturing sector added to a total of $7,121,000.

The purchasing patterns of all of the other sectors of the economy can be identified in a similar manner. In summary, one is able to identify the magnitude and distribution of <u>purchases</u> by the various sectors by reading down the <u>columns</u> in Table 3. To discover the pattern of <u>sales</u> in the community one engages in a similar exercise: reading across the <u>rows</u> of Table 3. For example, finding service stations in the left hand column, and reading across, gives an indication to whom they sell: $429,000 to lumber, $200,000 to commercial fishing, none to fish processing, etc.

Interpretation of the transactions in the public sectors of local government (sectors 17-28) requires some additional explanation. Local

government does purchase goods and services from local businesses. These purchases are shown in the intersections of columns 17-28 with rows 1-16. However, the reverse is only partially true. Taxes may be viewed as payments by the private sectors for the purchase of goods and services from local government. But the purchase-sale analogy is not perfect in this case of public transaction. To some extent the tax goes into a common coffer and the funds thus collected are disbursed as local government provides its various services. Some of these services are quite general in that they benefit about equally broad segments of the local community. Others are directed at some very specific groups. For a variety of reasons it may be impossible or undesirable for local government (or any level of government) to collect its revenue from various groups of the public only on the basis of the benefits which these groups may derive from the local government's services. However, attempting to interpret the numbers in the intersections of columns 1-15 and rows 16-28 of Table 3 in the manner outlined above for the upper part of the Table, would require such an assumption. It would have to be assumed that goods and services provided by the local government sectors to the various sectors of the economy would be exactly equal to the tax payments. Of course, a much simpler explanation is called for: these numbers simply represent tax payments.

Tables 4 and 5 summarize the relationships of the various sectors within the local economy in comparison to their relationships with the rest of the world. It is helpful to know which sectors are heavily dependent upon the local economy. Fish processing purchases 33.1 percent of inputs locally from businesses and sells 98.8 percent outside the local area (Tables 4 and 5). On a dollar basis, the total volume of business transacted by this sector is large. The lumber sector is similar. These are obviously export sectors, important in drawing outside money into the County. Many of their input needs are also met from outside the county borders. Agriculture is somewhat different; 78.3 percent of the purchases are made locally, while 71.6 percent of the product goes outside the County. Agriculture is being serviced to a greater extent from within the local economy than is true of the two sectors mentioned earlier. However, the total volume of business is much smaller.

Table 4. Local and non-local purchases by sector in thousands of dollars, in the Clatsop County economy, 1968

Sector	Purchases by local sectors* $	Purchases by non-local sectors $	Percent purchased by local sectors* %	Percent purchased by non-local sectors %
[1] Lumber	22,112,	38,451,	36.5	63.5
[2] Commercial fishing	2,591,	976,	72.6	27.4
[3] Fish processing	13,153,	26,634,	33.1	66.9
[4] Agriculture	2,975,	824,	78.3	21.7
[5] Manufacturing	2,957,	4,166,	41.5	58.5
[6] Lodging	4,520,	3,078,	59.5	40.5
[7] Cafes & taverns	3,513,	2,882,	54.9	45.1
[8] Service stations	2,376,	4,220,	36.0	64.0
[9] Automotive sales and service	2,908,	6,672,	30.3	69.7
[10] Communication & transportation	4,149,	9,573,	30.2	69.8
[11] Professional services	3,982,	3,470,	53.4	46.6
[12] Financial services	2,042,	5,834,	25.9	74.1
[13] Construction	6,876,	11,793,	36.8	63.2
[14] Retail & whole-sale trade	11,985,	33,410,	26.4	73.6
[15] Retail services & organizations	7,740,	8,496,	47.7	52.3
[16] Port authority	664,	392,	62.9	37.1
[17] Education	4,289,	723,	85.6	14.4
[18] County roads	425,	18,	95.9	4.1
[19] Law enforcement	204,	25,	89.1	10.9
[20] Health department	81,	6,	93.1	6.9
[21] Welfare	766,	0	100.0	0
[22] General fund	435,	99,	81.5	18.5
[23] City of Astoria	1,033,	289,	78.1	21.9
[24] City of Warrenton	121,	42,	74.2	25.8
[25] Town of Hammond	23,	4,	85.2	14.8
[26] City of Gearhart	69,	14,	83.1	16.9
[27] City of Seaside	334,	56,	85.6	14.4
[28] City of Cannon Beach	84,	22,	79.2	20.8
[29] Household	78,397,	0	100.0	0
[30] Government	7,701,	0	100.0	0
[31] Exports	126,383,	0	100.0	0
[32] Capital formation & inventory	3,377,	12,590,	21.1	78.9
Total inputs	318,265,	174,759,	64.6	35.4

* Includes households.

Table 5. Local and non-local sales by sector in thousands of dollars, in the Clatsop County economy, 1968

Sector	Sales to local sectors* $	Sales to non-local sectors $	Percent sales to local sectors* %	Percent sales to non-local sectors %
[1] Lumber	4,960,	55,605,	8.2	91.8
[2] Commercial fishing	2,645,	921,	74.2	25.8
[3] Fish processing	482,	39,304,	1.2	98.8
[4] Agriculture	1,081,	2,718,	28.4	71.6
[5] Manufacturing	4,148,	2,976,	58.2	41.8
[6] Lodging	7,390,	208,	97.3	2.7
[7] Cafes & taverns	6,289,	106,	98.4	1.6
[8] Service stations	6,394,	201,	97.0	3.0
[9] Automotive sales and service	8,520,	1,060,	89.0	11.0
[10] Communication & transportation	12,062,	1,660,	87.9	12.1
[11] Professional services	4,946,	2,506,	66.4	33.6
[12] Financial services	5,289,	2,588,	67.2	32.8
[13] Construction	5,548,	13,121,	29.7	70.3
[14] Retail & wholesale trade	34,837,	10,557,	76.7	23.3
[15] Retail services & organizations	15,515,	721,	95.6	4.4
[16] Port authority	124,	932,	11.7	88.3
[17] Education	3,975,	1,038,	79.3	20.7
[18] County roads	200,	242,	45.0	55.0
[19] Law enforcement	229,	0	100.0	0
[20] Health department	87,	0	103.6	0
[21] Welfare	528,	238,	68.8	31.2
[22] General fund	492,	42,	92.1	7.9
[23] City of Astoria	1,164,	157,	88.0	12.0
[24] City of Warrenton	136,	27,	83.4	16.6
[25] Town of Hammond	11,	16,	40.7	59.3
[26] City of Gearhart	19,	64,	22.9	77.1
[27] City of Seaside	287,	104,	73.4	26.6
[28] City of Cannon Beach	98,	8,	92.4	7.6
[29] Household	53,380,	340,	99.4	0.6
[30] Government	15,026,	0	100.0	0
[31] Imports	132,695,	12,590,	91.3	8.7
[32] Depreciation & inventory	14,417,	0	100.0	0
Total outputs	342,974,	150,050,	69.6	30.4

* Includes households.

The above examples are extractive industries. They are expected to be important exporters. On the other hand, the service sectors offer an opportunity to observe a different behavior. For example, about half of the purchases from the retail services sector are made outside the local area (52.3 percent), while this sector sells 95.6 percent of its services inside the county. These retail and wholesale businesses purchase 26.4 percent (Table 4) locally and sell 76.7 percent (Table 5) locally.

Direct Business Per Dollar

The description of the economy to this point has been in terms of absolute dollar transactions among sectors. Another description of the economy is based on the distribution of purchases made by each sector in generating one dollar of sales. These numbers are reported in Table 6. Again, reading down the columns we note that per dollar of total sales the fish processing sector spends nothing within the lumber sector, over 6.6 cents with local commercial fishermen, a small amount with other processors, then spends 9.3 cents with manufacturers, 0.2 cents in auto sales, and 4.1 cents in communication and transportation, etc., until there has been an accounting for the entire dollar. Below sector 16 is presented a subtotal (Σ_{1-16}) for the total purchases made by the fish processing sector among the businesses in Clatsop County (24 cents). Continuing down the column, we find the listing of this sector's purchases (taxes or user charges) from local government (Σ_{17-28}) is 0.3 cents.

Continuing with fish processing, three-quarters of the purchases were made from sources not yet mentioned; 9.0 cents from households; 4.0 cents for state and federal taxes. The largest item is the 61.6 cents spent in the import sector. This heavily reflects the purchase of fish for processing. The final 1.3 cents reflect inventory changes and depreciation allowance. A similar use can be made of the data for the other sectors reported in Table 6.

The above discussion on distribution of direct purchases is summarized in Table 7. Certainly payrolls are largely paid to county residents. As

Table 6. Purchases (in dollars) per dollar of sales by sector; matrix of direct (technical) coefficients, Clatsop County, Oregon, 1968

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]
[1] Lumber	0.0762	0	0	0	0	0	0	0	0	0.0127	0	0	0.0064	0	0	0.0040	0	0	0	0	0	0
[2] Commercial fishing	0	.0028	.0658	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[3] Fish processing	0	0	.0006	0	.0008	0	0	0	0	0	0	.0003	0	.0012	0	.0022	0	0	0	0	0	0
[4] Agriculture	0	0	0	.0119	.1277	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[5] Manufacturing	0	0	.0933	0	0	0	0	0	0	0	0	0	0	0	.0042	.0015	0	0	0	0	0	0
[6] Lodging	0	0	0	0	0	0	0	0	0	0	0	.0007	0	0	.0052	0	0	0	0	0	0	.0001
[7] Cafes & taverns	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.0012	*	0	.0010	0	0	.0001
[8] Service stations	.0071	.0562	0	.0340	.0135	0	0	.0110	.0019	.0062	.0024	0	.0017	.0006	.0016	.0088	.0110	.0393	.0046	.0162	0	.0063
[9] Automotive sales and service	.0014	.0234	.0024	.0038	.0145	.0030	.0003	.0067	.0033	.0056	.0103	.0019	.0069	.0009	.0026	.0052	.0128	.1111	0	0	0	.0006
[10] Communication & transportation	.0306	.0410	.0408	.2756	.1046	.0917	.0241	.0287	.0307	.0153	.0176	.0196	.0091	.0133	.0017	.0015	.0076	0	.0177	.0182	.0029	.0485
[11] Professional services	.0186	.0361	.0003	.0012	.0006	.0003	.0042	.0011	.0007	.0002	.0052	.0034	.0007	.0005	.0012	.0174	.0041	.0427	.0244	0	.2737	.0214
[12] Financial services	.0108	.0030	.0109	.0362	.0229	.0016	.0008	.0009	.0587	0	.0008	.0043	.0103	.0022	.0102	.0069	0	0	0	0	0	0
[13] Construction	.0005	.0012	.0026	.0039	.0081	.0036	.0521	.0020	.0044	.0028	.0135	.0100	.0445	.0016	.0029	.0991	.0275	.02355	.0007	.0009	0	.0109
[14] Retail & wholesale trade	.0364	.0498	.0176	.1708	.0485	.0875	.1104	.1703	.0281	.0145	.0291	.0230	.0186	.0300	.0103	.0382	.0843	.0724	.0489	.0482	.0219	.0685
[15] Retail services & organizations	.0069	.0882	.0055	.0448	.0059	.1139	.0532	.0217	.0170	.0015	.0345	.0088	.0073	.0249	.0153	.0026	.0220	.0146	.0225	0	.0502	.0205
[16] Port authority	.0006	.0001	*	.0004	.0001	.0007	.0001	*	*	.0016	*	.0013	.0001	.0002	.0002	0	0	0	0	0	0	0
Σ_{1-16}	.1891	.3008	.2398	.5826	.3472	.3023	.2452	.2424	.1458	.0604	.1134	.0733	.1056	.0754	.0654	.1886	.1693	.5156	.1198	.0835	.3487	.1774
[17] Education	.0215	.0049	.0018	.0167	.0035	.0273	.0048	.0014	.0017	.0234	.0020	.0031	.0020	.0086	.0071	0	.0140	0	0	0	0	.0001
[18] County roads	.0010	.0002	.0001	.0007	.0002	.0012	.0002	.0001	.0001	.0010	.0001	.0001	.0001	.0004	.0003	0	0	0	0	0	0	0
[19] Law enforcement	.0012	.0003	.0001	.0009	.0002	.0014	.0002	.0001	.0001	.0012	.0001	.0002	.0001	.0004	.0004	0	0	0	0	0	0	0
[20] Health department	.0005	.0001	*	.0003	.0001	.0005	.0001	*	*	.0005	*	.0001	*	.0002	.0001	0	0	0	0	0	0	0
[21] Welfare	.0031	.0006	.0002	.0022	.0005	.0036	.0006	.0002	.0002	.0031	.0003	.0004	.0003	.0011	.0009	0	0	0	0	0	0	0
[22] General fund	.0028	.0006	.0002	.0020	.0004	.0032	.0006	.0002	.0002	.0027	.0002	.0015	.0002	.0010	.0008	.0068	0	0	0	0	0	.0035
[23] City of Astoria	.0002	0	.0006	0	.0021	.0080	.0008	.0022	.0007	.0011	.0010	.0005	.0002	.0033	.0016	.0026	0	0	0	0	0	0
[24] City of Warrenton	0	0	.0001	.0001	0	.0001	.0004	.0002	0	.0001	*	.0001	*	.0008	.0003	.0029	0	0	0	0	0	0
[25] Town of Hammond	0	0	.0001	0	0	*	*	*	0	*	0	0	*	*	*	0	0	0	0	0	0	0
[26] City of Gearhart	0	0	0	0	0	.0014	0	*	0	*	*	0	0	.0001	*	0	0	0	0	0	0	0
[27] City of Seaside	0	*	*	0	.0001	.0079	.0016	.0009	.0003	.0004	.0004	.0004	.0001	.0015	.0007	0	0	0	0	0	0	0
[28] City of Cannon Beach	0	0	0	0	0	.0024	*	.0001	0	*	*	0	*	.0002	*	0	0	0	0	0	0	0
Σ_{17-28}	.0303	.0066	.0032	.0229	.0071	.0570	.0093	.0054	.0033	.0335	.0041	.0064	.0030	.0176	.0122	.0123	.0140	0	0	0	0	.0036
$\Sigma_{1-16} + \Sigma_{17-28}$	.2194	.3074	.243.	.6055	.3543	.3593	.2545	.2478	.1491	.0939	.1175	.0797	.1086	.0930	.0776	.2009	.1833	.5156	.1198	.0835	.3487	.1810
[29] Aluminum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
[30] Household	.1458	.4191	.0876	.1777	.0611	.2355	.2947	.1123	.1544	.2083	.4168	.1798	.2597	.1712	.3987	.4279	.6724	.4445	.7698	.8520	.6513	.6331
[31] Government	.1014	.0790	.0402	.0376	.0048	.0313	.0403	.0231	.0241	.1038	.1048	.0689	.0396	.0363	.0463	0	0	.0399	.0015	.0645	0	.0319
[32] Imports	.4205	.1347	.6159	.0592	.4741	.2335	.3791	.5974	.6611	.4950	.3395	.6633	.5604	.6693	.4420	.3712	.1442	0	.1090	0	0	.1539
[33] Depreciation & inventory	.1129	.0393	.0133	.1201	.1060	.1403	.0314	.0194	.0113	.0988	.0214	.0084	.0318	.0304	.0350	0	0	0	0	0	0	0

* Indicates a number too small to round up to 0.0001.

1/ The aluminum sector is shown here to report the direct coefficients; this sector was not used in the analysis until later.

[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	
0	0	0.0127	0	0	0.0064	0	0	0.0040	0	0	0	0	0	0.0001	0.0011	0	0	0.0006	0	0	0	[1]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[2]
0	0	0	0	0003	0	0	0012	0	0022	0	0	0	0	0	0003	0	0	0	0	0	0	[3]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[4]
0	0	0	0	0	0	0	0042	0015	0	0	0	0	0	0	0007	0248	0	0	0	0	0	[5]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0001	0174	0	0	0	0	0015	0	[6]
0	0	0	0	0	0017	0006	0012	0	0	0393	0046	0162	0	0001	0024	0	0007	0	0007	0002	0	[7]
0110	0019	0062	0024	0	0017	0006	0016	0088	0110	0393	0046	0162	0	0068	0083	0110	0	0174	0094	0049	0017	[8]
0067	0033	0056	0103	0019	0069	0009	0026	0052	0128	1111	0	0	0	0006	0063	0329	0	0213	0234	0214	0008	[9]
0287	0307	0153	0176	0196	0091	0133	0017	0015	0076	0	0177	0182	0029	0485	0075	0090	0	0117	0057	0015	0	[10]
0011	0007	0002	0052	0034	0007	0005	0012	0174	0041	0427	0244	0214	2737	0107	0252	0037	0234	0784	0320	0008		[11]
0009	0587	0	0008	0043	0103	0022	0102	0069	0	0	0	0	0	0	0	0	0009	0	0115	0		[12]
0020	0044	0028	0135	0100	0465	0016	0029	0991	0275	02355	0007	0009	0	0109	0512	3267	4445	2078	0663	5258	0	[13]
1703	0281	0145	0291	0230	0186	0300	0103	0382	0843	0724	0489	0482	0219	0685	0707	0890	1206	1134	0885	0540	1094	[14]
0217	0170	0015	0345	0038	0073	0249	0153	0026	0220	0146	0225	0	0502	0205	0574	0395	0270	0309	0272	0012	0254	[15]
		0016		0013	0001	0002	0002	0		0	0	0	0	0002	0	0	0	0	0	0		[16]
2424	1458	0604	1134	0733	1056	0754	0654	1886	1693	5156	1198	0835	3487	1774	2332	5992	5965	4274	2996	6540	1381	[17]
0014	0017	0234	0020	0031	0020	0086	0071	0	0140	0	0	0	0	0001	0018	0043	0	0	0	0	0160	[18]
0001	0001	0010	0001	0001	0001	0004	0003	0	0	0	0	0	0	0	0	0	0	0	0	0	0007	[19]
0001	0001	0012	0001	0002	0001	0004	0004	0	0	0	0	0	0	0	0	0	0	0	0	0	0008	[20]
		0005		0001		0002	0001	0	0	0	0	0	0	0	0	0	0	0	0	0	0003	[21]
0002	0002	0027	0002	0015	0002	0010	0011	0010	0033	0016	0009	0	0035	0	0634	0	0	0	0	0	0	[22]
0022	0007	0011	0005	0002	0002	0033	0016	0009	0026	0	0	0	0	0	0	0	0	0	0	0	0	[23]
		0001		0001		0008	0003	0029	0	0	0	0	0	0	0003	0	0102	0812	0	0	0020	[24]
								0	0	0	0	0	0	0	0	0	0	0	0	0	0	[25]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[26]
0001	0	0004	0004	0001	0034	0015	0007	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[27]
0001	0		0		0002		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0126	[28]
0054	0033	0235	0041	0064	0030	0176	0122	0123	0140	0	0	0	0036	0455	0044	0102	0818	0012	0207	0238		Σ_{17-28}
2478	1491	0939	1173	0797	1086	0930	0776	2009	1833	5156	1198	0835	3487	1810	2787	5636	6067	5092	3008	6747	1619	$\Sigma_{1-16} + \Sigma_{17-28}$
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[29]
1123	1544	2083	4168	1798	2597	1712	3987	4279	6724	4445	7698	8520	6331	5030	3633	2603	3225	5566	1202	1000		[30]
0231	0241	1038	1048	0689	0296	0363	0463	0	0	0399	0015	0645	0319	0134	0056	0191	0046	0032	0	0500		[31]
5974	6611	4950	3395	6633	5604	6693	4420	3712	1442	0	1090	0	1539	2049	0676	1138	1636	1395	2052	6481		[32]
0194	0113	0988	0214	0084	0318	0304	0250	0	0	0	0	0	0	0	0	0	0	0	0	0	0	[33]

Σ_{17-28} [29]

Table 7. Direct purchases per dollar of business within the local economy by sectors, Clatsop County, Oregon, 1963

Sector	Purchases from: Local businesses $	Local government $	Households $	Total local purchases $	Leakages[a] $
[1] Lumber	0.19	0.031	0.15	0.37	0.63
[2] Commercial fishing	.30	.007	.42	.73	.27
[3] Fish processing	.24	.003	.09	.33	.67
[4] Agriculture	.58	.023	.18	.78	.22
[5] Manufacturing	.35	.007	.06	.42	.58
[6] Lodging	.30	.058	.24	.60	.40
[7] Cafes & taverns	.25	.009	.29	.55	.45
[8] Service stations	.24	.005	.11	.37	.63
[9] Automotive sales and service	.15	.003	.15	.31	.69
[10] Communication & transportation	.06	.035	.21	.31	.69
[11] Professional services	.11	.004	.42	.54	.46
[12] Financial services	.07	.008	.18	.27	.73
[13] Construction	.11	.003	.26	.37	.63
[14] Retail & wholesale trade	.08	.018	.17	.27	.73
[15] Retail services & organizations	.07	.013	.40	.48	.52
[16] Port authority	.19	.012	.43	.63	.37
[17] Education	.17	.014	.67	.86	.14
[18] County roads	.52	0	.44	.96	.04
[19] Law enforcement	.12	0	.77	.89	.11
[20] Health department	.08	0	.85	.94	.06
[21] Welfare	.35	0	.65	1.00	0
[22] General fund	.18	.004	.63	.82	.18
[23] City of Astoria	.23	.046	.50	.79	.21
[24] City of Warrenton	.56	.004	.36	.93	.07
[25] Town of Hammond	.60	.010	.26	.87	.13
[26] City of Gearhart	.43	.082	.32	.88	.17
[27] City of Seaside	.30	.001	.56	.86	.14
[28] City of Cannon Beach	.65	.021	.12	.80	.20

a/ Leakages are the combined totals for imports, state and federal taxes, and capital accumulation and depreciation allowances.

an example, the wages paid by lodging and cafes and taverns largely go to county residents; 24 and 29 cents per dollar of business, respectively. In Table 7 it is possible to see the purchases of each sector from other local businesses, local government, and households.

The expenditures of households in the county were collected from the business sectors. Largely for reasons of research economy it was decided to view households as final consumers. The research did not intend to imply that households were not important to the local economy, but rather to focus the time and funds available on the business and tax revenue effects of the proposed aluminum plant.

The manner in which household spending was analyzed in this study reduces the economic activity estimated, in that the increase in salaries and wages is not recirculated in the model as they would be in the real world.

Total Business Per Dollar

The study deals with an estimate of the impact of an economic change in the local community. In the section above, the breakdown was given of the distribution of the expenditures made to generate an additional dollar of output. In essence, we had a view of the first round impact on the economy for each dollar of output. Of particular interest was who received the business and how much. But our specific interest is to determine how much total business is generated or lessened by one dollar change in sales of a particular sector. This requires that we observe the effects of the additional dollar of sales as it passes through the community paying bills. One dollar may be exchanged many times in settling accounts. As this dollar circulates, it adds to the total county business.

Figure 1 attempts to illustrate how money flows through and out of a local economy. A dollar is spent for local goods or services and the business receiving the dollar in turn pays for its purchases. The new dollar generates a series of transactions or turnovers to satisfy the

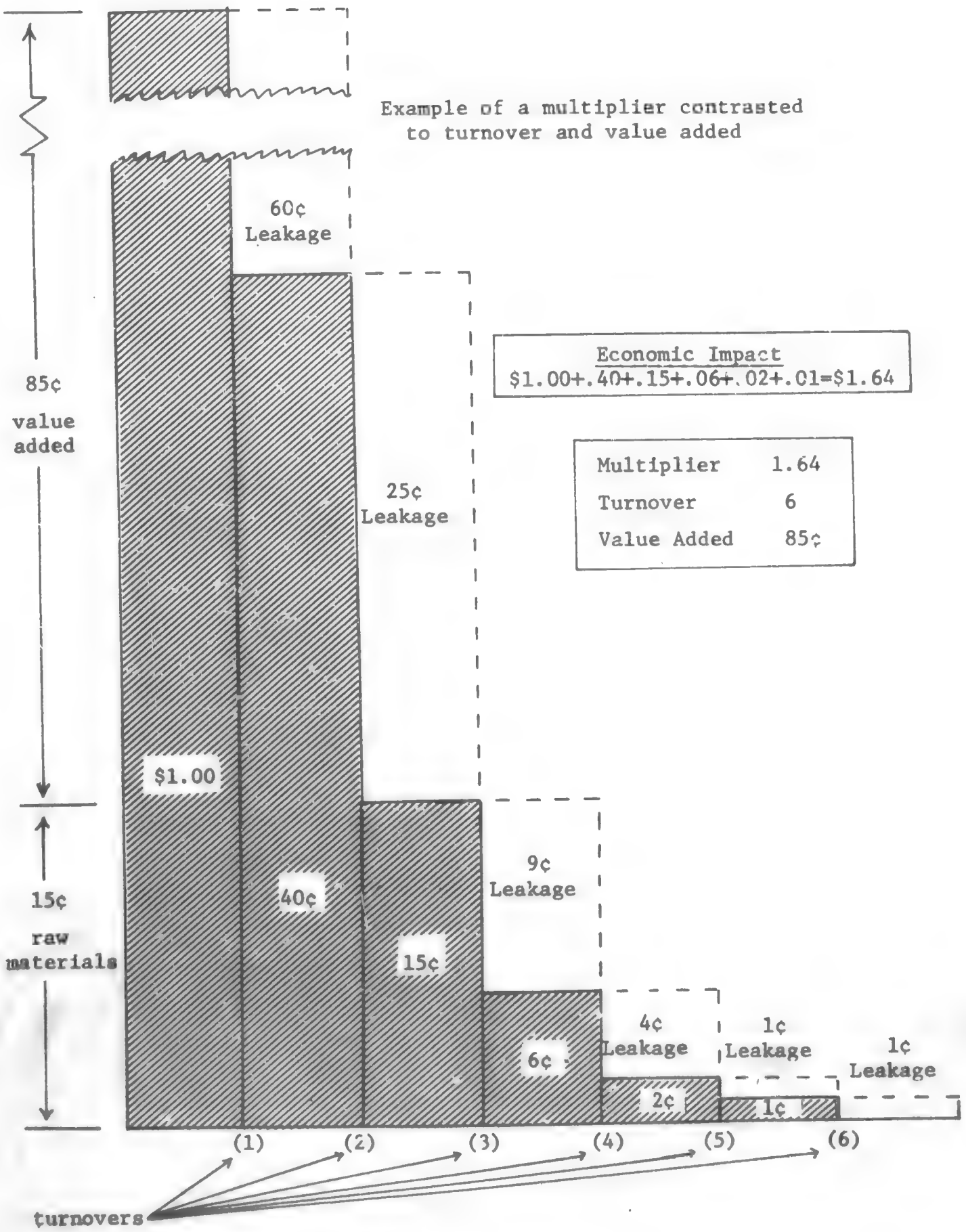

Figure 1. Illustration of transactions of one dollar through a local economy.

needs for generating the product or service sold. In the illustration in Figure 1, 40 cents is spent within the local community. This first expenditure is similar to the type of expenditure reported in Table 6. The 60 cents not spent locally are called leakages. The larger portion of the dollar is usually a leakage; that is, a majority of the bills occurred outside of what we call here the "local community".

Returning to Figure 1, 60 cents was a leakage, but 40 cents reappears within the economy and will be spent again.[3/] However, when it is returned for a second turnover, leakages continue to occur in our illustration resulting in 25 cents leaving the local economy and 15 cents remaining. This process continues until the effects of the original and subsequent transactions can no longer be felt in the local area.

Leakages represent the extent of the economy's dependence upon other economies, or conversely, its measure of self-sufficiency. A local economy enjoys diversity in available goods and services if trade and the accompanying leakages take place. Of course, some of the money comes back again in purchases, restarting the cycle as surrounding areas once again buy local goods and services. This brings out an important point; the leakage tends to be less at each turnover for economies that are more nearly self-sufficient. This results in the money circulating longer in the larger communities (large metropolitan areas as opposed to hamlets). The size of leakages differ widely by business sectors as noted in Tables 4 or 6. Those economic sectors which can obtain a larger share of the needed inputs within the local community have lower leakages at the first turnover.

The total effect of a dollar of additional business for each sector is summarized in Table 8. The difference between it and Table 6 is that the total of the first, second, third, and subsequent rounds of effects are reported. In Table 6 the sum of each column is limited to direct

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3/ Saving is also a leakage as this money is withheld from further circulation locally.

purchases from one dollar of additional sales. In Table 8 all transactions resulting from an additional dollar are identified and summed for the many rounds of transactions within the local economy. This means the total is greater than the original one dollar.

Using the lumber sector as an example, $1.08 of lumber sales is generated from $1.00 additional business. Naturally there is the original dollar plus 8.3 cents in business due to transactions among various firms in the County. If we refer back to Table 6 we note direct purchases of 7.6 cents within the lumber sector, resulting from a dollar of increased sale. The difference, 0.7 cents, is the result of subsequent transactions in the County's business community, some of which result in additional sales by the lumber sector.

The lumber column reveals that a dollar of sales has an impact on every other sector even though no direct purchases were made from several of them. Again reference to Table 6 will illustrate that lumber made no direct purchases from commercial fishing, fish processing, agriculture, manufacturing, etc. However, in Table 8 there is money showing up from each dollar of business in lumber in each of these sectors. It is small, but it does show up. The final result is that for the lumber sector in Clatsop County the sum of all effects of a dollar of additional business is $1.26 when followed completely through the community. This same relationship can be determined for each sector studied. The sums are recorded at the bottom of Table 8 and in Table 10. This sum of total business effects, direct and indirect, is called the business multiplier.

The Business Multiplier

The business multipliers vary widely depending upon the nature of the sector gaining the additional dollar. (The range in Clatsop County was $1.09 to $1.69.) Affecting the business multiplier are the size and self-sufficiency of the community. The local economy is more nearly self-sufficient in supplying the agricultural sector needs than supplying lumber; multipliers are respectively 1.69 and 1.26. This makes sense when

Table 8. Direct and indirect effects of one dollar change in business within Clatsop County, Oregon, 1968

	[1]	[2]	[3]	[4]	[5]	[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]
[1] Lumber	1.0830	0.0007	0.0008	0.0040	0.0021	0.0014	0.0008	0.0005	0.0005	0.0141	0.0004	0.0004	0.0074	0.0002	0.0002	0.0051	0.0004	0.0019	0.0003	0.0003	0.0002
[2] Commercial fishing	*	1.0029	.0660	*	.0001	*	*	*	*	*	*	*	*	.0001	*	.0002	*	*	*	*	*
[3] Fish processing	.0001	.0001	1.0007	.0002	.0009	.0001	.0001	.0002	.0001	*	*	.0004	*	.0012	*	.0023	.0001	.0001	.0001	.0001	*
[4] Agriculture	*	.0001	.0121	1.0121	.1293	.0001	*	*	*	*	*	*	*	*	.0001	.0002	*	*	*	*	*
[5] Manufacturing	.0001	.0004	.0934	.0003	1.0002	.0005	.0003	.0001	.0001	*	.0002	.0001	*	.0002	.0043	.0018	.0001	.0001	.0001	*	.0001
[6] Lodging	.0001	.0005	.0001	.0003	.0002	1.0008	.0003	.0002	.0002	*	.0002	.0008	.0001	.0002	.0054	.0001	.0001	.0001	.0001	*	.0001
[7] Cafes & taverns	*	*	*	*	*	*	1.0000	*	*	*	*	*	*	*	*	.0012	*	*	.0010	*	*
[8] Service stations	.0085	.0577	.0060	.0373	.0193	.0016	.0006	1.0116	.0022	.0069	.0027	.0003	.0020	.0010	.0020	.0094	.0116	.0408	.0049	.0166	.0009
[9] Automotive sales and service	.0026	.0250	.0060	.0067	.0165	.0050	.0014	.0074	1.0038	.0064	.0108	.0024	.0074	.0014	.0031	.0065	.0136	.1142	.0006	.0003	.0032
[10] Communication & transportation	.0359	.0473	.0590	.2894	.1458	.0971	.0277	.0328	.0334	1.0172	.0195	.0210	.0109	.0148	.0139	.0051	.0106	.0097	.0197	.0198	.0094
[11] Professional services	.0216	.0371	.0031	.0025	.0015	.0029	.0050	.0016	.0012	.0017	1.0055	.0038	.0011	.0012	.0018	.0181	.0044	.0435	.0246	.0001	.2755
[12] Financial services	.0121	.0058	.0144	.0383	.0292	.0036	.0024	.0021	.0605	.0007	.0021	1.0048	.0115	.0027	.0108	.0088	.0016	.0100	.0005	.0002	.0012
[13] Construction	.0024	.0030	.0045	.0075	.0107	.0089	.0558	.0033	.0058	.0045	.0148	.0112	1.0470	.0030	.0040	.1056	.0297	.2483	.0015	.0012	.0043
[14] Retail & wholesale trade	.0466	.0653	.0317	.1941	.0814	.0990	.1175	.1796	.0323	.0201	.0325	.0254	.0219	1.0333	.0138	.0457	.0920	.0922	.0529	.0531	.0321
[15] Retail services & organizations	.0108	.0950	.0142	.0539	.0158	.1206	.0581	.0275	.0191	.0035	.0367	.0102	.0089	.0269	1.0173	.0063	.0260	.0236	.0254	.0018	.0611
[16] Port authority	.0007	.0002	.0002	.0010	.0004	.0009	.0002	.0001	.0002	.0017	.0001	.0013	.0001	.0003	.0002	1.0000	*	.0001	.0001	*	*
[17] Education	.0251	.0075	.0045	.0264	.0103	.0319	.0071	.0041	.0032	.0247	.0031	.0040	.0029	.0096	.0080	.0010	1.0156	.0021	.0012	.0010	.0013
[18] County roads	.0011	.0003	.0002	.0011	.0004	.0013	.0003	.0002	.0001	.0010	.0001	.0002	.0001	.0004	.0003	*	.0001	1.0001	.0001	*	.0005
[19] Law enforcement	.0014	.0004	.0002	.0014	.0005	.0016	.0004	.0002	.0002	.0013	.0002	.0002	.0001	.0005	.0004	.0001	.0001	.0001	1.0001	.0001	.0007
[20] Health department	.0005	.0001	.0001	.0005	.0002	.0006	.0001	.0001	.0001	.0005	.0001	.0001	.0001	.0002	.0002	*	*	*	*	1.0000	*
[21] Welfare	.0035	.0010	.0006	.0034	.0013	.0041	.0009	.0005	.0004	.0032	.0004	.0005	.0004	.0012	.0010	.0001	.0002	.0003	.0002	.0001	1.0001
[22] General fund	.0032	.0009	.0005	.0031	.0012	.0037	.0008	.0005	.0004	.0029	.0004	.0017	.0004	.0011	.0009	.0070	.0002	.0003	.0001	.0001	.0006
[23] City of Astoria	.0005	.0006	.0011	.0012	.0027	.0091	.0014	.0030	.0010	.0013	.0012	.0006	.0003	.0036	.0019	.0030	.0004	.0006	.0003	.0002	.0004
[24] City of Warrenton	*	.0001	.0002	.0003	.0001	.0003	.0006	.0003	*	.0002	*	.0001	*	.0008	.0004	.0030	.0001	.0001	.0001	*	*
[25] Town of Hammond	*	*	.0001	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
[26] City of Gearhart	*	*	*	*	*	.0014	*	.0001	*	*	*	*	*	.0001	*	*	*	*	*	*	*
[27] City of Seaside	.0001	.0003	.0001	.0005	.0003	.0082	.0018	.0012	.0004	.0005	.0005	.0005	.0001	.0016	.0008	.0001	.0002	.0003	.0001	.0001	.0008
[28] City of Cannon Beach	*	*	*	*	*	.0024	*	.0001	*	*	*	*	*	.0002	*	*	*	*	*	*	*
[29] Aluminum	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1.2599	1.3523	1.3198	1.6859	1.4704	1.4071	1.2836	1.2771	1.1652	1.1124	1.1315	1.0900	1.1227	1.1058	1.0918	1.2307	1.0271	1.5885	1.1340	1.0051	1.3911

* Indicates a number too small to round up to 0.0001.

[6]	[7]	[8]	[9]	[10]	[11]	[12]	[13]	[14]	[15]	[16]	[17]	[18]	[19]	[20]	[21]	[22]	[23]	[24]	[25]	[26]	[27]	[28]	[29]	
0.0014	0.0008	0.0005	0.0005	0.0004	0.0141	0.0004	0.0074	0.0002	0.0051	0.0004	0.0019	0.0003	0.0003	0.0002	0.0002	0.0008	0.0007	0.0038	0.0034	0.0027	0.0006	0.0048	0.0002	[1]
*	*	*	*	*	*	*	*	*	.0002	*	*	*	*	*	*	*	*	*	*	*	*	*	*	[2]
.0001	.0001	.0002	.0001	*	*	*	.0004	*	.0012	*	*	*	.0001	.0023	.0001	.0001	.0005	.0001	.0002	.0002	.0001	.0001	.0001	[3]
.0001	*	*	*	*	*	*	*	*	.0001	*	*	*	.0001	.0032	.0001	.0001	*	.0001	.0003	*	.0003	*	*	[4]
.0005	.0003	.0001	.0001	*	.0002	.0001	*	.0002	.0043	.0018	.0001	*	.0001	.0250	.0004	.0022	.0002	.0001	.0001	.0001	.0002	.0001	.0001	[5]
1.0008	.0003	.0002	.0002	*	.0002	.0008	.0001	*	.0054	.0001	.0001	*	.0003	.0186	.0002	.0002	.0002	.0003	.0002	.0002	.0002	.0016	*	[6]
*	1.0000	*	*	*	*	*	*	*	.0012	*	*	*	.0010	*	.0001	.0025	*	.0007	*	.0007	*	.0007	.0002	[7]
.0016	.0006	1.0116	.0022	.0069	.0027	.0003	.0020	.0020	.0010	.0116	.0408	.0049	.0094	.0018	.0009	.0074	.0092	.0127	.0012	.0195	.0101	.0063	.0023	[8]
.0050	.0014	.0074	1.0038	.0064	.0108	.0024	.0074	.0006	.0065	.0136	.1142	.0006	.0003	.0032	.0014	.0077	.0366	.0040	.0266	.0252	.0264	.0016	[9]
.0921	.0277	.0328	.0334	1.0172	.0195	.0210	.0109	.0148	.0139	.0051	.0196	.0197	.0196	.0094	.0516	.0132	.0202	.0073	.0197	.0109	.0102	.0022	[10]
.0029	.0050	.0016	.0012	.0017	1.0055	.0038	.0011	.0012	.0018	.0181	.0044	.0435	.0246	.0061	.2753	.0219	.0116	.0260	.0047	.0262	.0792	.0336	.0022	[11]
.0036	.0024	.0021	.0021	1.0048	.0115	.0027	.0108	.0088	.0016	.0100	.0005	.0002	.0012	.0043	.0124	.0007	.0020	.0073	.0058	.0059	.0029	.0195	.0006	[12]
.0089	.0058	.0033	.0058	.0045	.0148	.0112	1.0670	.0030	.0040	.1056	.0297	.2483	.0015	.0012	.0043	.0573	.3436	.4695	.2466	.0712	.5619	.0044	[13]
.0990	.1175	.1796	.0323	.0201	.0325	.0254	.0219	1.0333	.0138	.0457	.0920	.0922	.0529	.0531	.0323	.0745	.0831	.1062	.1359	.1357	.0986	.0719	.1166	[14]
.1206	.0581	.0275	.0191	.0035	.0367	.0102	.0089	.0269	1.0173	.0063	.0260	.0236	.0254	.0018	.0617	.0241	.0668	.0479	.0354	.0421	.0343	.0095	.0039	[15]
.0009	.0002	.0001	.0002	.0017	.0001	.0013	.0001	1.0000	.0002	.0003	.0001	*	.0001	.0001	.0002	.0001	.0002	.0001	.0001	.0001	.0001	.0001	.0254	[16]
.0319	.0071	.0041	.0032	.0247	.0031	.0040	.0029	.0096	.0080	.0010	1.0156	.0021	.0012	.0061	.0022	.0041	.0050	.0073	.0027	.0030	.0018	.0024	.0173	[17]
.0013	.0093	.0002	.0001	.0010	.0001	.0002	.0001	.0004	.0003	*	.0001	1.0001	.0061	.0001	.0001	.0001	.0501	.0001	.0001	.0001	.0001	.0001	.0007	[18]
.0016	.0004	.0002	.0002	.0013	.0002	.0002	.0001	.0005	.0004	.0001	1.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0001	.0004	.0001	.0009	[19]
.0006	.0001	.0001	.0001	.0005	.0001	.0001	.0001	.0002	.0002	*	.0001	*	1.0000	.0001	.0001	*	.0001	.0001	.0001	*	*	.0003		[20]
.0041	.0009	.0005	.0004	.0032	.0004	.0005	.0004	.0012	.0010	.0001	.0002	.0002	.0001	1.0002	.0003	.0003	.0002	.0004	.0003	.0009	.0002	.0003	.0022	[21]
.0037	.0008	.0005	.0004	.0029	.0004	.0017	.0004	.0011	.0009	.0070	.0002	.0003	.0031	.0001	.0002	1.0037	.0003	.0004	.0003	.0009	.0011	.0024	.0022	[22]
.0091	.0014	.0030	.0010	.0013	.0012	.0006	.0003	.0036	.0019	.0030	.0004	.0004	.0030	.0006	.0073	.0002	.0005	.0004	.0006	.0007	.0005	.0005	.0005	[23]
.0003	.0006	.0003	*	.0002	*	.0001	*	.0008	.0004	.0030	.0001	.0001	.0001	.0004	1.0001	.0001	*	.0001	*	.0814	.0001	.0001	.0022	[24]
*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	1.0000	*	*	*	*	[25]
.0014	*	.0001	*	*	*	*	*	.0001	*	*	*	*	*	*	*	*	*	*	*	1.0000	*	*	*	[26]
.0082	.0018	.0012	.0004	.0005	.0005	.0005	.0001	.0016	.0008	.0001	.0002	.0003	.0001	.0004	.0002	.0002	.0003	.0001	.0003	1.0002	.0002	1.0189	.0002	[27]
.0024	*	.0001	*	*	*	*	*	.0002	*	*	*	*	*	.0001	*	*	*	*	*	*	*	*	*	[28]
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.0000	[29]
1.4071	1.2836	1.2773	1.1652	1.1124	1.1315	1.0900	1.1227	1.1058	1.0918	1.2307	1.0271	1.5885	1.1340	1.0951	1.3919	1.2025	1.3264	1.6424	1.6837	1.6149	1.3387	1.7704	1.1862	Total

we think about the needs of these industries and the local economy's ability to meet them. Local government multipliers may be interpreted as the additional business generated locally from the purchases made from tax revenues.

New Industry Effects

The principal objective of this study goes beyond a description of the Clatsop County economy. It is focused on the analysis of the economic impact of the addition of a large aluminum plant. In this section we shall summarize our estimates of the expected changes resulting from the aluminum plant. Only time will tell whether or not these projections are "correct", assuming the plant will be built.

This analysis might assist the people in the community to partially answer the following questions:

1. From the viewpoint of the local economy, are the overall beneficial effects of the change greater than the required sacrifices?

2. If the change comes to pass, how much and where will its effects be felt in the local economy?

3. What other changes could be made to offset the effects or to complement the effects expected from the additional industry?

Our first task will be to see what might be expected from the proposed aluminum plant. The new plant will affect the community mainly by hiring people and by buying some inputs locally for operational purposes. The bauxite or alumina will be imported and the aluminum ingots will be exported, so this aspect is of little direct concern to the local community. The assignment is to determine where this plant will purchase within the local community and the magnitude of these purchases. These purchases are reported in Tables 3 and 9. The purchases represent estimates based on "informed guesses". If better estimates become available, they can be fitted into the model and the impact can be reevaluated. In the same manner, the total business reported in Table 9 is an estimate, hopefully close enough to reality to be useful to the community.

Table 9. Direct purchases and resulting increase in total business estimated for the aluminum plant in the Clatsop County economy

Sector	Direct purchases	Total business
[1] Lumber	$ 0	$ 10,333
[2] Commercial fishing	0	765
[3] Fish processing	0	11,588
[4] Agriculture	0	985
[5] Manufacturing	0	7,623
[6] Lodging	0	1,780
[7] Cafes & taverns	0	2,006
[8] Service stations	100,000	137,870
[9] Automotive sales and service	50,000	93,501
[10] Communication & transportation	0	131,835
[11] Professional services	50,000	133,391
[12] Financial services	0	37,542
[13] Construction	0	264,181
[14] Retail & wholesale trade	6,564,000	6,994,441
[15] Retail services & organizations	0	235,265
[16] Port authority	1,524,000	1,525,152
Σ_{1-16}	8,288,000	9,588,858
[17] Education	957,000	1,038,668
[18] County roads	41,000	43,734
[19] Law enforcement	50,000	53,402
[20] Health department	19,000	20,174
[21] Welfare	126,000	134,390
[22] General fund	113,000	131,334
[23] City of Astoria	0	29,107
[24] City of Warrenton	121,000	130,486
[25] Town of Hammond	0	176
[26] City of Gearhart	0	478
[27] City of Seaside	0	11,281
[28] City of Cannon Beach	0	1,185
Σ_{17-28}	1,427,000	1,594,415
[29] Household	6,000,000	9,180,000
[30] Government	3,000,000	NA
[31] Imports	41,286,463	NA
[32] Depreciation & inventory	0	NA
Total Inputs	$ 60,000,000	NA

It becomes clear in Table 9 who is affected directly and who indirectly from the increased business from the aluminum firm. Only five business sectors of 16 are anticipated to make significant sales directly to the new plant, although, when all the transactions are traced through the economy, everyone gets some additional business. Distribution is not at all even, however, throughout the 16 sectors. Commercial fishing and agriculture will not feel the impact estimated in this study. Given the size of lumber and fish processing, they also will not feel the magnitude of the impact nor will manufacturing, lodging, and cafes and taverns. Impact estimates for the latter three sectors may not well represent the potential in the final outcome due to sampling problems, but given the estimated structure, little additional business is anticipated. It should be remembered that we are considering the effects of the operating plant, not the construction period before the plant begins operation. The construction period may result in considerable business for local manufacturing, cafes and taverns, and lodging. The final nine sectors of the business community receive significant business increases from the increased economic activity generated by the plant, although several of these receive no direct purchases at all. These groups would logically include the strongest supporters for the economic expansion expected from an aluminum plant.

Associated with the economic expansion effects discussed above there are other economic effects which this study does not take into account explicitly. Very important may be the new industry's impacts upon real property values in the area. Because of the increased economic activity and perhaps because of a higher rate of immigration, the demand for certain types of commercial and residential properties may rise, resulting in higher values for these properties. Nor is it likely that this effect upon real property values would be spread evenly throughout the entire County. In this uneven distribution of the impact upon local asset values may be another source of the conflict associated with local industrial development projects.

Our study also does not address itself to the question of the environmental impact which might result from the industrial addition. However, if there

were negative effects of the kind which would reduce recreationists' expenditures in the local area, the study is useful in tracing out the community impact of these. The procedure for doing this is analogous to that outlined for estimating the impact of the aluminum plant.

The Public Sector

The taxes are projected for the new plant and listed as direct purchases in Table 9 for sectors 17 through 28. These taxes are based on the projected appraised value of the plant, its location, and the 1968 tax rates in the County. The taxing structure may be altered after the plant is built. However, it is possible to observe the impact of local government revenues given the 1968 conditions. The second column in Table 9 includes the total local tax increases anticipated from the general increase in business, resulting from the general expansion in business resulting from the effects of the proposed plant.

The new plant is expected to pay a total of $1,427,000 in direct local taxes. This increases to $1,594,000 when the total tax impact in the County is collected. Of this total increase, $1,039,000 would be allocated to education within the County under the 1968 budgeting conditions. The question facing taxpayers in the County will be whether this annual increase is sufficient to pay the total increased annual school costs. How many families and how many school-aged children will be added to the community is a problem for the local school board to determine. How much does it cost for one year of public education in Clatsop County? Will $1,039,000 cover the costs of the increased needs for education in the county? The school boards and others in the community can begin to figure the impact on schools and school costs and make some judgments with respect to future tax bills in Clatsop County.

In similar fashion, will $44,000 handle the increased demand for streets and roads on an annual basis? Will $53,000 annually meet the additional needs for law enforcement? This process can be continued down the entire list of local government expenditures. There may be several places for

considerable savings to be realized and shifts can take place among governmental sector budgets. Perhaps welfare payments will decline as a result of incoming employment opportunities. It is through this kind of analysis that we are able to judge whether the community will enjoy any net benefits by addition of the aluminum plant.

The Port Authority receives the large increase; this should be explained. At the time of the study it was not clear whether the company or the Port Authority would own the docks and would handle the ore across the docks. For convenience, this activity was placed within the Port Authority sector, and treated as a normal business for this activity. Regardless of who handled the ore, the expenditure pattern within the community would be very similar and the costs would not vary greatly.

Household Income

It is possible to estimate the impact of the proposed plant's wages on other wages and salaries in the county. All wages in the county are projected to rise by $9,180,000 (Table 9) as a result of the $6,000,000 wage bill from the new aluminum industry. It is possible to obtain a great deal more information on how much total increase in wages results from additional dollar in wages (payments to household) paid by any sector. These relationships will be called household income multipliers. Again they represent the total increase in salaries and wages per dollar increase in salaries and wages from a given sector. This multiplier is not tied to increases in total business but to increases in local salaries and wages.

The aluminum industry has a household income multiplier of 1.53. Other sectors' income multipliers may also be found in Table 10. They range from 2.61 for the City of Cannon Beach and the manufacturing sector to 1.02 for the health department. The implications are that manufacturing wages and the wages from the Cannon Beach city operations generate an additional $1.61 in wages in the county. Similarly, the health department creates relatively little in additional local wages from expenditures they

Table 10. 1968 and projected gross output and output and income multipliers all by economic sector for Clatsop County, Oregon

Sector	(1) Total output 1968 $	(2) Projected total output with the aluminum plant $	(3) Direct plus indirect change in total output (2)-(1) $	(4) Output multiplier	(5) Income multiplier
[1] Lumber	60,564,452	60,574,585	10,333	1.26	1.47
[2] Commercial fishing	3,566,305	3,567,070	765	1.35	1.23
[3] Fish processing	39,786,831	39,798,419	11,588	1.32	1.81
[4] Agriculture	3,799,475	3,800,460	985	1.69	1.89
[5] Manufacturing	7,124,345	7,131,968	7,623	1.47	2.61
[6] Lodging	7,597,314	7,599,094	1,780	1.41	1.55
[7] Cafes & taverns	6,395,356	6,397,362	2,006	1.28	1.25
[8] Service stations	6,594,843	6,732,713	137,870	1.28	1.53
[9] Automotive sales and service	9,580,321	9,673,822	93,501	1.16	1.24
[10] Communication & transportation	13,722,312	13,854,147	131,835	1.11	1.18
[11] Professional services	7,452,140	7,585,531	133,391	1.13	1.09
[12] Financial services	7,876,573	7,914,115	37,542	1.09	1.13
[13] Construction	18,669,454	18,933,635	264,181	1.12	1.11
[14] Retail & wholesale trade	45,394,380	52,388,821	6,994,441	1.11	1.20
[15] Retail services & organizations	16,235,945	16,471,210	235,265	1.09	1.07
[16] Port authority	1,056,011	2,581,763	1,525,752	1.23	1.14
[17] Education	5,012,717	6,051,385	1,038,668	1.21	1.08
[18] County roads	442,644	486,378	43,734	1.59	1.31
[19] Law enforcement	229,842	283,244	53,402	1.13	1.05
[20] Health department	86,297	106,471	20,174	1.10	1.02
[21] Welfare	765,777	900,167	134,390	1.39	1.23
[22] General fund	534,166	665,500	131,334	1.20	1.08
[23] City of Astoria	1,321,309	1,350,416	29,107	1.33	1.20
[24] City of Warrenton	162,965	293,451	130,486	1.64	1.44
[25] Town of Hammond	26,777	26,953	176	1.68	1.66
[26] City of Gearhart	83,224	83,702	478	1.61	1.50
[27] City of Seaside	390,796	402,077	11,281	1.34	1.17
[28] City of Cannon Beach	105,938	107,123	1,185	1.77	2.61
[29] Aluminum	0	60,000,000	*	1.19	1.53
TOTAL			11,185,273		

* Sales of aluminum are not included because all are exported.

make on wages and salaries with only 2 cents being found in other wages and salaries in the community resulting from this original expenditure.

Summary of the Economic Impact

Table 10 may be used to summarize the impacts anticipated from the proposed aluminum plant. The Clatsop County economy is pictured in column 1 as it was in 1968 without the plant. In column 2 the plant is operating within the economy. The third column simply reports the anticipated differences in total economic change in business within the county resulting from this major industrial addition.

There are no answers given here as to whether the plant should be built, whether the impacts are good or bad. But more information is provided to allow this community and others in similar circumstances to discuss the issues surrounding the proposed change in the community. Hopefully, this information is an aid to improve social decision-making.

Appendix A. Aggregation of Businesses of Clatsop County, Oregon

Sector No.	Sector	Business types
1	Lumber	Logging, log hauling, lumber mills, plywood mills, timber dealers, shingle manufacturing, logging contractors, paper and pulp plants.
2	Commercial fishing	Trollers, otter trawlers, gill-netters, commercial clammers, commercial crabbers.
3	Fish processing	Fish and sea food dealers, fish packing and processing, fish packing coopera-tives, crab companies, clam and shrimp processors.
4	Agriculture	All farms and ranches which derive at least one-half of the gross receipts from the sale of agriculture and fur products.
5	Manufacturing	Food processors (other than sea foods), soft drink bottling companies, meat and poultry processors, creameries, machine manufacturing, stone and clay processors, glass products, box pro-ducts, canvas products, metal cans, bio-products, ice cream, bakers, and foundaries.
6	Lodging	Hotels, motels, trailer parks, apartments, boarding houses, rooming houses.
7	Cafes & taverns	Restaurants, cafes, taverns, drive-ins and short order eating places, and ice cream parlors.
8	Service stations	All service stations and wholesale gasoline distributors.
9	Automotive sales & service	New and used auto and trailer sales, tire stores, parts and accessories, auto repair shops, towing, automotive body and paint shops, tire stores, auto upholstery, boat dealers, trailer tow-ing, tire recapping and farm tractor dealers.

Appendix A — Continued

Sector No.	Sector	Business types
10	Communication & transportation	Trucking, railroads, airlines, buses, radio and television stations, telephone company, telegraph, newspapers, television cable company, taxicabs, auto leasing, moving vans, trailer rentals, tug and barge service.
11	Professional services	Doctors, dentists, lawyers, accountants, bookkeepers, chiropractors, architects, surveyors, engineers, medical and dental laboratories, optometrists, veterinarians, ambulance service, nursing homes, and appraisers.
12	Financial services	Banks, savings and loan associations, stockbrokers, financial companies and credit bureaus.
13	Construction	Firms that contract for building, electrical, plumbing, road and highway, painting, heating, roofing, flooring, shipbuilders, sand and gravel operations, carpenters, asphalt paving companies, concrete manufacturers, excavators, land levelers, masonries, well drillers, cabinet makers, tile layers, sheet metal firms, plasterers, electrical and hardware stores, steel and pipe dealers, retail lumber yards, salvage companies, and commercial refrigeration contractors.
14	Retail & wholesale trade	Natural gas companies, fuel oil dealers, electric utilities, bottled gas suppliers, clothing stores, shoe stores, department stores, variety stores, furniture and appliance stores, jewelry stores, beer distributors, drug stores, office supply stores, milliners, state-owned liquor stores, music stores, flower shops, camera shops, paint stores, news stands, gift shops, fisherman's supply stores, printing companies, cold storage and ice dealers, wholesale-retail groceries and supermarkets, and all wholesale dealers supplying the above stores if located in Clatsop County.

Appendix A — Continued

Sector No.	Sector	Business types
15	Retail services & organizations	Privately owned kindergartens and child nurseries, photo studios, theaters and other recreational facilities, laundries and cleaners, tailors, barbers and beauty shops, upholsterers, funeral homes, machine and welding shops, car wash, private business schools, music teachers, repair shops, unions, lodges, and service organizations, building rental services, garbage collectors, insurance and real estate, churches, vending machine operators, private parking lots, trading stamp companies, private employment agencies, janitorial service, credit services, telephone answering service, security police.
16	Port authority	All transactions of the Port of Astoria as recorded by the county port authority.
17	Education	Includes all six school districts, intermediate education district (I.E.D.), Clatsop Community College, and the county superintendent of schools.
18	County roads	Includes all transactions involved in construction and maintenance of county roads.
19	Law enforcement	Includes all transactions concerning the county sheriff's office including tax collection, all justices of the peace, and district court.
20	Health department	Includes all transactions of the county health department.
21	Welfare	All funds administered by the county welfare department, including federal, state, and local. Also all salaries, office supplies of employees of county welfare department.
22	General fund	All transactions of the following county departments: assessor, treasurer, county commissioners, elections, county

Appendix A — Continued

Sector No.	Sector	Business types
		clerk, county surveyor, courthouse maintenance, planning commission, land agent, humane officer and department, veterans service and current expense account.
23	City of Astoria	All transactions conducted by the city government, includes all departments and divisions.
24	City of Warrenton	All transactions conducted by the City of Warrenton.
25	Town of Hammond	All transactions conducted by the Town of Hammond.
26	City of Gearhart	All transactions conducted by the City of Gearhart.
27	City of Seaside	All transactions conducted by the City of Seaside.
28	City of Cannon Beach	All transactions conducted by the City of Cannon Beach.
29	Household	Transactions by private individuals who are Clatsop County residents.
30	Aluminum	All transactions conducted by the proposed aluminum plant.

F

CH2M HILL
ENGINEERS PLANNERS ECONOMISTS

CORNELL, HOWLAND, HAYES & MERRYFIELD
Business Center Building, 777-106th Ave. N. E., Bellevue, Washington 98004, Tel: 206/455-0500 Seattle Regional Office

12 April 1974

S8573.0

Mr. I. R. Macdonald
Amax Pacific Aluminum Corporation
Suite 250
1600 - SW Fourth
Portland, Oregon 97201

Dear Mr. Macdonald:

As promised, here is our report on the impact of the BPA sale of power to AMAX.

We appreciate the opportunity of assisting you in this matter. Best wishes.

Sincerely,

Herschel F. Jones
Director, Economics Division

jb

THE ENVIRONMENTAL CONSEQUENCES OF THE SALE OF POWER BY THE BONNEVILLE POWER ADMINISTRATION TO AMAX PACIFIC ALUMINUM COMPANY

INTRODUCTION

This report is in response to a request made by Mr. Ian R. Macdonald of the Amax Pacific Aluminum Company (AMAX) to CH2M HILL, Inc., in a letter dated 1 March 1974. In that letter and in subsequent conversations, Mr. Macdonald discussed the need of AMAX for a study of the impact of the sale of power by the Bonneville Power Administration to his company for use in the operation of an aluminum reduction plant at Warrenton, Oregon. The direct impact of the operation of the plant has been studied and reported by others. What was needed was an analysis of the indirect consequences of the sale of power on third parties or the general public. This is the subject of this report.

THE POWER SUPPLY OF THE PACIFIC NORTHWEST

The states of Oregon, Washington, Idaho, and Montana west of the continental divide are served electrically by members of the West Group of the Northwest Power Pool and interconnected electric utilities. For purposes of this report, this is the "Pacific Northwest." While over 150 separate but interconnected entities are engaged in the generation, transmission, and distribution of electricity in this region, this report will be primarily concerned with the activities of the major generating utilities which are members of the Northwest Power Pool and are parties to the "Coordination Agreement" which governs the operations of the pool members.

Operations of the Northwest Power Pool are markedly different than those of other power pools which serve electric requirements in other regions in the United States. The difference results from the fact that over 90 percent of the power delivered by the pool is generated at large hydroelectric installations--the largest in the United States. While the bulk of the new electric energy producing plants to be added to the pool's resources in future years will be thermal-electric, a substantial part of the region's base load and most of its peak load will be carried by the hydroelectric plants for many years.

Hydroelectric power differs from thermal-electric power in many respects. In the first place, it is a renewable source of energy compared with fossil fuels and nuclear fuels which are nonrenewable. Next, it is a clean nonpolluting source of energy and while it uses water, it does not consume it. Also, most of the hydroelectric plant structures were built as parts of multipurpose projects which serve mankind by providing flood protection, navigation channels, recreation facilities, and impound water for irrigation and other uses. There are many other technical differences between hydroelectric and thermal electric plants, but for purposes of this study the most important difference of all is that hydroelectric plant outputs change from year to year and indeed from month to month depending upon varying amounts of water available for operation--i.e., changes in streamflow. Barring interruptions in the supply of fuel, thermal-electric plant output is fully predictable. The output of hydroelectric plants, on the other hand, may vary substantially depending upon changes in precipitation and temperature.

Only the power that can be produced by the most critical streamflows of record can be sold as firm power. The power that is produced by streamflows greater than critical must be sold as interruptible power (sometimes called nonfirm or secondary power).

Some interruptible power is available from the Pacific Northwest power system almost every year. In the 1928-1958 historical period now being used by the Northwest Power Pool for planning purposes, some interruptible power would be available in all but two of the thirty years, assuming current plant installations and present loads. The following table shows the number of months out of 30 for each month in each operating period that interruptible power is estimated to be available to meet industrial interruptible requirements from Pacific Northwest plants:

	Operating Year		
	1974-75	1975-76	1976-77
July	13	13	13
August	14	13	14
September	10	9	7
October	10	10	10
November	10	10	11
December	13	13	13
January	21	21	20
February	20	23	21
March	21	21	20
April	24	22	22
May	24	23	23
June	22	22	21

USES OF INTERRUPTIBLE POWER

Almost all users of electric energy require that it be available instantly when needed. As a result, electric systems take extraordinary measures, including the investment

of large sums of money, to insure maximum continuity of service. For this reason, utility systems cannot use interruptible power to serve the loads of their residential, commercial, and most of their industrial customers. Yet large quantities of interruptible power are available on the system of the Pacific Northwest. What markets exist for such interruptible power?

Interruptible power can be used to save fuel by serving loads that would otherwise be served by thermal-electric plants. In the past 30 years, the 300-400 MW of old, high-cost thermal stations in the Pacific Northwest have seldom been operated because interruptible power was available as a substitute. Interruptible power can also be exported outside the region to California, Utah, and British Columbia to replace fuel in thermal-electric stations.

The largest use of interruptible power in the past, however, has been by the large electro-process plants served directly by the Bonneville Power Administration. Sales of this otherwise unusable power to these large industrial plants since 1945 have totaled 76 billion kilowatt hours and have increased BPA's revenues by $152 million. Four and one-half million tons of aluminum have been produced by the use of this otherwise unsaleable grade of hydroelectric power.

The revenue BPA has received from the sale of interruptible power has greatly helped to make it unnecessary for BPA to raise its rates for firm power during the 1939-1974 period except for a nominal increase of 3 percent in 1965.

POWER TO BE PURCHASED BY AMAX

AMAX' contract with BPA calls for the delivery of 120 MW of firm power 1 February 1976, increasing to 240 MW on 1 July 1976. BPA's current policy on direct industrial sales requires each of its industrial customers to purchase one-fourth of its total BPA supply on an interruptible basis, so we may assume that the total power requirements of AMAX will be 160 MW in February 1976 and 320 MW in July of that year.

If BPA's current rate proposal for industrial customers is adopted, AMAX' firm power will be reduced to 40 MW in February and 80 MW in July. The additional firm power now earmarked for delivery to AMAX will become interruptible if power required to serve firm loads in the region is not available in any future year as a result of delays in the completion of the large thermal generating plants now planned to meet the region's growing requirements.

AMAX can firm up 80 MW of this interruptible power by participating in the financing of additional large thermal generating plants to the extent of 80 MW of the additional capacity which these plants will make available to the region. Assuming AMAX agrees to do this, AMAX' power supply will be one-half firm and one-half interruptible.

The largest new generating plants being built to meet the region's requirements will have capacities in the range of 1,100 to 1,200 MW. If one of these plants was a year late, the region would not obtain 550 to 600 MW of firm energy which it requires to meet its firm loads. In such circumstances, from 48 to 53 MW of AMAX' power would be subject to curtailment under critical water conditions in addition to its 80 MW of

interruptible power after 1 July 1976. If, in a succeeding year a second major powerplant were delayed, the amount of AMAX' load that could be curtailed would increase to 66 to 72 MW, in addition to 80 MW of interruptible power in a critical year.

Together with power curtailed from other directly served BPA industrial customers, these amounts of curtailment would prevent load curtailments in the region of firm loads of BPA's utility customers and firm loads of other utilities in the region.

EFFECT OF SALES OF POWER TO AMAX ON POWER SUPPLIES OF OTHER CONSUMERS IN THE PACIFIC NORTHWEST REGION

The West Group Forecast of Power Loads and Resources, published by the Pacific Northwest Utilities Conference Committee dated 1 February 1974, shows the following comparisons of firm loads and firm resources for the July 1975 - June 1985 period:

Operating Year	Firm Energy Loads	Firm Energy Resources	Surplus or Deficit	Added Energy in Average Year
75-76	13,763	14,650	887	2,223
76-77	14,818	15,494	676	2,298
77-78	15,692	15,862	170	2,395
78-79	16,575	16,433	(142)	2,446
79-80	17,458	16,988	(470)	2,510
80-81	18,384	17,751	(633)	2,526
81-82	19,334	20,243	909	2,588
82-83	20,340	21,152	812	2,609
83-84	21,399	21,195	(204)	2,615
84-85	22,497	21,918	(579)	2,606

This table does not reflect 438 to 487 MW of energy available from existing fossil thermal generation and miscellaneous resources such as obsolete oil fired stations and new combustion turbines. Without doubt these plants would operate under the most critical streamflow conditions. Also, the table does not reflect the ability of the region to augment its supply of energy under critical streamflow conditions by importing power from outside the region--principally California, Canada, Montana, and Utah.

So in 5 of the 10 years there is a small surplus of energy under critical year streamflows ranging from 170 MW to 877 MW. In the other 5 years, there is a deficiency ranging from 142 MW to 633 MW. In two of the deficit years, the deficiency is so small it could be overcome by the operation of the fossil-thermal regional plants noted above. All of the deficiencies will disappear if the Phase II plants of the region's hydro-thermal program are constructed on time.

As we noted earlier, the region's industrial plants served directly by BPA, plan to participate in the Phase II plants in order to assure the region (and their own operations) of an adequate supply of electric energy. If we assume that these plants are constructed, there will be no shortage of power in this 10-year period whether or not the AMAX plant is in operation. Also, there will be no need to operate the old, obsolete steam-electric stations or additional combustion turbine plants in the region to serve firm loads.[1/]

1/ Combustion turbines at Bethel, Harborton & Beaver operated by PGE, Whidby Island operated by PSP&L, Othello operated by WWP Co. are included in firm resources and would operate at times of critical streamflow.

lso, as we have noted above, any shortage of power to serve irm loads caused by delays in the operation of any of the hase I scheduled plants are to be offset by reductions in oads of the industrial customers served by BPA.

hat then is the impact of the 320 MW load of the AMAX plant n the power supply of the Pacific Northwest. We can best pproach this by examining the situation year by year, but irst it is proper to consider the differences in the impact hich occurs as a result of differences in streamflow from ear to year.

n 5 of the 30 years of streamflow records currently in use or computing hydroelectric production, the average secondary nergy production falls to less than 500 MW. In those 5 years, f AMAX were not in operation, available energy to serve econdary loads would increase to amounts from 320 MW to 71 MW. This would improve the power supply of the region n critical or near critical years for loads served by econdary power--principally steam-replacement and industrial interruptible loads. However, since these loads would usually e served by imported power rather than being curtailed, the ain effects would be to:

1. Decrease the cost of service to non-firm loads.

2. Reduce the generation of energy by electric plants outside the region.

In my opinion, there would be no environmental impact resulting from a reduction in the cost of power to non-firm loads. The environmental impact of less generation of

electric energy by plants outside the region would result in less fuel being burned in fossil or nuclear fired steam-electric plants and less waste heat being released into the atmosphere either directly or by way of heated water.

It is obvious from the power supply and requirements data shown above that no Pacific Northwest generating plants could be eliminated from the schedule if AMAX did not operate its plant. It is possible that one plant could be delayed for a few months but less than a full year if AMAX did not operate.

The most important probable effect of not operating the AMAX plant would be to increase the reserves for unanticipated load growth by 320 MW. It does not appear that such an increase is likely to have an important environmental impact. If the plant is in operation the reserves for unanticipated load growth will be less, but this would not justify the construction of another thermal generating plant. However, it would possibly justify advancing the construction schedule of one of the plants by up to six months.

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Fluorine Levels in Plants of the Warrenton Area, 1968-1970:

Cultivated and Native Woody and Herbaceous Plants Prior to Aluminum Factory Operations

SPECIAL REPORT 335
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Oregon Agricultural Experiment Station
Oregon State University
Corvallis

Contents

	Page
Summary	1
Introduction	1
Methods	2
Figure 1	3
Results	5
Discussion	6
Literature Cited	10
Tables 1-9	13-30

AUTHORS: O. C. Compton is professor of horticulture, F. W. Adams is assistant professor of agricultural chemistry, Stanley Elliott is a chemist, Jack H. Wood is Clatsop County Extension chairman, D. W. Claypool is superintendent of the John Jacob Astor Experiment Station, and R. K. Marsh is Clatsop County Extension agent, Oregon State University.

Fluorine Levels in Plants of the Warrenton Area, 1968-1970: Cultivated and Native Woody and Herbaceous Plants Prior to Aluminum Factory Operations

O. C. Compton, F. W. Adams, Stanley Elliott,
Jack H. Wood, D. W. Claypool, and R. K. Marsh

Summary

A plant analysis survey for leaf fluorine 1/ concentrations was made in 1968-1970 in anticipation of the construction of an aluminum reduction factory near Warrenton, Oregon. Cultivated and native plants mostly within six miles of the factory site were sampled. Forages were collected eight times and all other plant materials from one to four times.

Pasture herbages contained an average of 0.8 to 3.2 ppm fluorine with only 11 percent of the 457 samples exceeding 3.4 ppm. The fluorine content of each of the other six species averaged 2.9 ppm, with the exception of 4.2 ppm found in 2-year-old Sitka spruce needles during 1968. Five improved strains of pasture grasses maintained in pure stands were consistently and uniformly low in fluorine content.

Within the area sampled, differences in terrain (tideland versus upland), river valley, or distance and direction from the factory site produced no trends in the fluorine contents of pasture herbage.

Introduction

This report presents the fluorine contents of foliage samples from native and cultivated plants collected during 1968-1970 in the Warrenton-Astoria area of Oregon in anticipation of the construction of an aluminum reduction factory near Warrenton.

Plants normally absorb variable amounts of fluorine from the soil through their roots and accumulate it in leaves, stems, and fruits. The concentration of soil-derived fluorine is generally less than 10 ppm

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1/ The term "fluorine" in this report refers to the total amount of this element detected by the method of analysis. It is not implied that fluorine occurred as the free element. In all the materials analyzed the fluorine (F) was in the combined or fluoride form.

(5, 7, 8, 16, 19)[2] but may exceed several hundred ppm in certain species.[3] Plants are also able to absorb fluorine from the air through their leaves, and fluorine from gaseous hydrogen fluoride (22) emitted by industry may be accumulated in amounts sufficient to produce injury on foliage or fruits of sensitive species grown nearby (1, 2, 7, 8, 19, 26).

Symptoms of foliar injury resembling those caused by elevated fluoride levels may also be produced by other causes such as high chloride content of the soil, drought, insect attacks, and mineral deficiencies (29, 30). Often the only way to identify foliar injury by fluoride is by chemical analysis (10). It is therefore important to determine the soil-derived plant fluorine levels prior to nearby industrial discharges into the air so that contributions by industry may be assessed.

In 1968 the Northwest Aluminum Company asked the Oregon Agricultural Experiment Station to conduct a survey of livestock and of crop and forest plants in the vicinity of their proposed aluminum reduction factory which was to be constructed about two miles south of Warrenton and three and a half miles southwest of Astoria, Oregon. The purpose of the survey was to determine 1) the health and condition of livestock and crops including forest trees raised in the area; 2) the fluorine levels in livestock, in forages grown or used in the area, and in foliage of native forest trees, fruit trees, berry crops, vegetables, and ornamentals including shore pine planted in the dunes area to the west of the factory site. The survey was to be conducted for two years prior to and for at least three years after the start of factory operations scheduled for 1971.

Methods

Forage sampling sites were selected at approximately one-mile intervals in the Warrenton area and along the Lewis and Clark and Youngs Rivers as shown on the map (Figure 1). Sixty-seven fields or pastures from the 35 sites or farms were sampled. Eight of these were dairy farms, 20 beef operations, three bent grass seed fields grazed part of the year, and four miscellaneous grass fields or plots. Two of the dairy farms were within three miles of the factory site. The sampling units are named and described in Table 1 and their locations are shown on the map, Figure 1.

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[2] Numbers in parentheses refer to Literature Cited, pages 10 and 11.

[3] Two samples of camellia leaves (*Camellia japonica*) collected in June 1970 at Corvallis, Oregon, contained 1,404 and 1,743 ppm F for Pink Perfection and an unknown variety, respectively. Foliage of eight other species of plants growing nearby contained 1-11 ppm F.

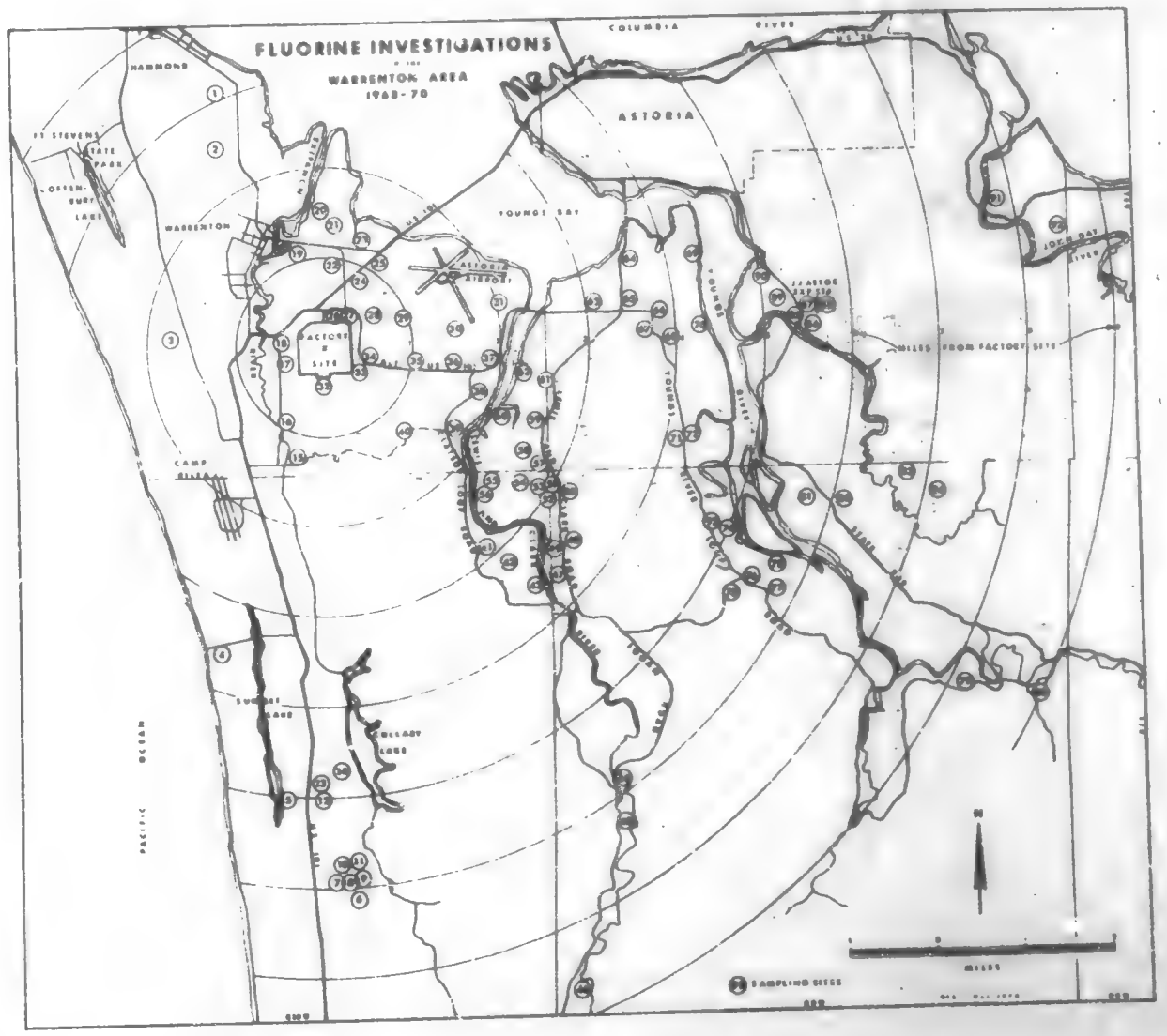

Figure 1. Geographical distribution of forage and foliage sampling locations. Site descriptions are given in Table 1.

Forage samples were obtained from one to seven fields at each site, depending upon grazing rotation, elevation, soil differences, and dominant grass species. Herbage was collected over a 2-3 acre area selected at random from each large field, while the whole pasture constituted the sampling unit in the small fields. The herbage was clipped within 2-3 inches of the soil surface from 10-20 points selected at random (up to 50 points when herbage was scarce) in each sampling unit and combined into one large sample of 300-400 grams.

Fifteen sampling sites for holly, blueberry, Sitka spruce, and western hemlock and 10 sites for cranberries were selected (see Table 1 and Figure 1).

Holly and blueberry leaves were collected from the middle third of the current season's growth of 5 to 15 holly trees and 15-20 blueberry plants. There were only two holly trees per variety at Sampling Site 88. Spruce or hemlock shoots and branches were collected from 5-10 trees at each site and combined into one sample per site. Pole pruners were used on the taller trees; otherwise, branches from 4 to 7 feet above ground were taken. Cranberry bogs were sampled by clipping 10-20 shoots from each of 10-20 places selected at random and combining these shoots into one sample, which supplied both leaves and fruits.

Pasture samples were collected once in 1968, three times in 1969, and five times in 1970. Holly, blueberry, cranberry, and forest tree samples were collected once or several times a season as indicated in the tables.

The pasture grass species plots maintained at the J. J. Astor Experiment Station were sampled twice in 1969 - on May 21 just prior to cutting for silage and on September 19 after seasonal regrowth.

During the summer all samples were iced when collected.

All leaf samples, except pasture herbage or hay, were washed in a solution containing 0.05 percent disodium (Ethylenedinitrilo)tetraacetate and 0.05 percent Alconox detergent (17, 25) and rinsed immediately in three changes of distilled water to remove surface contaminants. The washed samples were blotted or placed in a fan stream to remove free water. Pasture herbages collected when wet were treated similarly. After the samples were chopped into approximately one-inch lengths and mixed, 100 gram portions were frozen in cellophane bags containing 1.5 grams of low fluorine lime. The samples were prepared for analysis by the sodium hydroxide fusion technique developed by Remmert and Parks (21) and were analyzed for fluorine content by the semi-automated methods of Weinstein et al. (31,32) as modified by Jacobson (13, 14). Analytical results are reported as ppm fluorine on a dry weight basis.

Results

Fluorine content of 1968 samples

The fluorine contents of all samples collected in 1968 are presented in Table 2. The 33 pasture herbage samples collected between October 3 and November 1 averaged 2.4 ppm fluorine while the range was 1.1 to 7.8 ppm. Ninety-one percent of them were below 4 ppm.

Cranberry foliage and fruit did not exceed 3.5 ppm fluorine except for one sample of leaves taken October 8 which contained 9.2 ppm. The averages for leaves and fruits were 2.9 and 2.2 ppm, respectively.

Holly, hemlock, and spruce foliage contained from 0.2 to 7.4 ppm fluorine. Holly leaves averaged 2.2 ppm and two-year-old spruce needles, 4.2 ppm.

Fluorine content of 1969 samples

The fluorine contents of the pasture herbage samples taken in 1969 are reported in Table 3. The 37 samples taken in mid-May contained an average of 2.1 ppm, while those collected June 25-July 3 and September 8-10 contained averages of 1.8 and 2.5 ppm, respectively. Only 13 percent of all pasture herbages taken in 1969 contained more than 3.4 ppm fluorine. The range of all 121 samples was 0.5 to 13.1 ppm.

The fluorine contents of foliage samples of cranberry, holly, hemlock, spruce, trailing blackberry, and bracken fern are presented in Table 4. None of these samples exceeded 4.2 ppm fluorine, while the average for each species or time of sampling varied from 0.8 ppm in cranberry to 2.5 ppm in trailing blackberry.

The fluorine contents of the five pasture grass species are reported in Table 5. In May each species averaged about 1 ppm fluorine and from 1.4 to 3.2 ppm in September. At the first sampling there was remarkably little variation between species and among the samples of a species, the range being from 0.6 to 1.7 ppm F. At the September sampling differences between species were greater, but they were not statistically significant.

Fluorine content of 1970 samples

Pasture herbage samples were collected five times at approximately monthly intervals from late April to September (Table 6). The average for all samples collected in April and May was 2 to 3.2 times as high as for the other samplings, probably because of the considerably longer growth period and greater opportunity for contamination by soil residues. The average was 3.2 ppm F at the first sampling and 1.0, 1.2, 0.8, and 1.5 ppm for the June,

July, August, and September collections, respectively. Over 73 percent of all pasture herbages sampled in 1970 contained 2.0 ppm fluorine or less, while only 9 percent contained more than 3.5 ppm.

Table 7 gives the fluorine contents of leaf and fruit samples from the cranberry bogs in the Cullaby Lake area on August 12-13. The fluorine contents ranged from 0.1 to 2.3 in leaves, averaging 1.1 ppm, and from 0.2 to 7.9 in fruits, averaging 2.6 ppm. Although fruits contained slightly more fluorine than the leaves, the differences were small.

The average fluorine contents of the 1970 pasture herbage samples have been summarized according to terrain, distance from factory site, river valley, and by sector (Table 8). All pastures protected from incoming tides by dikes were classified as tidelands, while all others were listed as uplands regardless of elevation. Similarly, all pastures in the two drainage systems were listed according to their river valley, the Lewis and Clark or Youngs. Distance from the factory site was in increments of two miles. Because of the small number of fields in certain directions, the sectors to the N and NE were enlarged as shown in Table 8. The E and ESE sectors contained the largest number of fields. There appears to be no trend in fluorine contents in any of these categories; for instance, tidelands averaged 1.5 ppm and uplands, 1.4 ppm; Lewis and Clark River valley, 1.5 ppm, and Youngs River valley, 1.4 ppm. The distribution of levels of fluorine in pasture herbage seemed to be entirely at random in each category.

The fluorine contents of the pasture herbages obtained since October 1968 are summarized by range, average, and frequency class in Table 9. In October 1968 almost half of the 33 samples fell in the 1.4-2.0 ppm F class. There were none in some frequency classes and only two in the last class - 6.5 ppm from the Don Tagg field and 7.8 ppm from the Astor Experiment Station Pasture 1. Data are presented in Table 2. All other samples for each time of collection were classified similarly. Nearly all values for the entire sampling period are very low, with only a few that may be called moderate.

Discussion

In the absence of airborne fluorides, most plants accumulate only small amounts of soil-derived fluorine in their foliage. (See footnote 3, page 2 for examples of exceptions.) The form of fluoride in most soils according to MacIntire et al. (15) is the relatively insoluble calcium fluoride (solubility 16 ppm @ 18°C). Fluorides deposited from fertilizers, sprays, industrial effluents, and rain are converted to calcium fluoride (15). Forage plants accumulated only small amounts of fluorine from soils treated experimentally with calcium fluoride, and germination and growth

were not affected. Tomato plants dusted with powdered calcium fluoride or cryolite showed no adverse effects and leaf fluorine levels were not increased appreciably (17).

The forage samples collected in the Warrenton area were not washed, and their fluorine contents included internal and external fluoride derived from the soil. This fluorine, as noted above, has little or no effect on plants or on animals consuming it. As cattle normally consume unwashed vegetation, pasture herbages routinely are not washed for fluorine analysis and an occasional above-average fluorine value may be found (23).

In the Warrenton area, there were only two herbage samples out of the 457 that contained more than 10 ppm fluorine - 13.1 ppm from No. 37 in May 1969 and 12.0 ppm from No. 29 in July 1970. These low soil-derived fluorine levels would have no effect on plants or animals (1, 23, 24).

The relationship between the fluoride content of the diet and the effects on dairy cattle has been reported by Shupe (23) and Suttie (24). Shupe found no adverse effects at 15-30 ppm fluorine in the total diet but rated the chronic fluorosis borderline at 30-40 ppm. Suttie's conclusions were similar. He proposed an air quality standard for the protection of dairy cattle, the farm animal rated the most sensitive to injury by fluoride (20). The proposed standard would limit forage fluoride to a yearly average of 40 ppm determined by monthly samplings, with limits of 60 ppm for not over two consecutive months and 80 ppm for one month. This proposed standard is consistent with the safe level of 30 ppm in the total ration of dairy cattle as stipulated by the National Research Council (20). Grain and silage in the usual ration are low in fluorine and would dilute any higher fluorine levels in forages.

The average fluorine contents of the Warrenton area pasture samples were slightly lower than those of similar samples taken in 1952-1954 from the control pastures in the Willamette Valley (5, 6) and are less than half as great as those for alfalfa herbage taken in The Dalles area in 1957-1958 prior to aluminum factory operations (8).

In the Warrenton area, although pastures did vary in species composition as observed when samples were collected, the fluorine contents of these unwashed herbages varied in a random manner. There appeared to be no trend by terrain, river valley, or distance and direction from the factory site. Factors affecting the absorption of the small amounts of fluorine found in these herbages appear to have a similar effect throughout the area. MacLean et al. (16) reported that a timothy-red clover sward in New York contained 2-3 ppm fluorine prior to controlled hydrogen fluoride fumigation, almost the same value as those obtained in the Warrenton area and in the Willamette Valley (5, 6).

The amounts of fluorine found in the five common pasture grasses from the plots at the J. J. Astor Experiment Station were remarkably

similar throughout. All grasses accumulated only nominal amounts of fluorine from the soil. Orchard grass from Sampling Site 27 in 1969-1970 contained almost identical amounts of fluorine as the two varieties at the Experiment Station five miles to the east. These were all unwashed samples as were those analyzed by MacLean et al. (16).

It is evident from the data presented in Tables 2 through 7 that the seven plant materials analyzed in 1968-1970 contained similar low amounts of fluorine. The average fluorine contents varied from 0.8 to 3.2 ppm with the exception of 4.2 ppm in two-year-old Sitka spruce needles collected in 1968. In contrast, the average fluorine contents of the foliage of seven crops collected four times prior to aluminum factory operations in The Dalles area ranged from 4.0 to 14.9 ppm fluorine (8). Soils, crops, and climate differ considerably between the Warrenton and The Dalles areas.

Treshow (28, 29) has emphasized the importance of determining beforehand the health and vigor of plants growing in a potential air pollution area. Of equal importance is a knowledge of foliar fluoride levels. In The Dalles area fluoride levels were determined according to distance and direction from the factory for seven crops, including alfalfa, before and after factory operations (8). These data showed the changing fluoride levels in the area before and after the operation of the aluminum factory. Similar data for the Warrenton area should prove equally valuable.

Plants readily injured by an air pollutant and referred to as "indicators" have been used effectively as a visual expression of air pollution. Cole (4) found many native plants useful for showing the presence of sulfur dioxide, among them blackberry, oak, ash, and various weeds. Adams et al. (2) used ponderosa pine seedlings and gladiolus as indicators to delineate areas of high atmospheric fluoride pollution. Middleton and Paulus (18) conducted a statewide air pollution survey in which field crops, fruits, flowers, vegetables, and weeds were observed for symptoms of injury by various air pollutants. Darley (11) has reviewed the reports on use of plants as air pollution monitors. Compton and Remmert (7) used visual symptoms of injury and fluorine content of gladiolus leaves to pinpoint areas of greatest fluoride concentration and leaf injury around an aluminum reduction factory.

In the absence of visible injury to foliage, chemical analysis of leaves for fluorine content has been relied upon to determine levels of pollution. Compton, Remmert, and Spencer (5, 6) used the fluorine contents of pasture herbages and other livestock feeds to assess a potential hazard to dairy cattle in northwestern Oregon. As noted above, Suttie (24) proposed air quality standards for the protection of livestock based on the fluorine content of forages.

Only a few species of plants are readily injured by airborne fluorides (3, 26, 27, 29) and most of these are cultivated kinds. In the

absence of native plants readily injured by fluoride, Compton and Remmert (5) used the fluorine contents of the foliage of potted buckwheat plants to determine air fluoride pollution in the Sauvie Island area. The fluorine contents of sweet cherry foliage were used similarly in The Dalles area (9).

Native plants that can be used as indicators of airborne fluorine in the Warrenton area have been sought. The trailing evergreen blackberry (Rubus ursinus) and bracken fern (Pteridium aquilinum) were examined for their suitability. Both are widely distributed throughout the area and have a long growing season. The blackberry is browsed by the local elk herds during the winter (12). Because of its upright growth habit and frond formation, bracken is more readily sampled than blackberry, but it dies down in winter. The evergreen blackberry would, however, provide samples throughout the year. Foliage of both plants contained only nominal amounts of fluorine. Their capacity for absorption through the leaves has not been determined.

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Table 1. Location and description of sites from which samples of cultivated and native plants of the Warrenton area were obtained for fluorine analysis

Station No.	Sample site name	Township, range, section and quarter	Plant cover	Terrain	Distance and direction from factory site: Miles	Direction
1	Tagg, 13th Ave. fields	8N-10W-9-SW	Pasture	Tideland	3.1	NNW
2	" Home pastures	8N-10W-16-NW	"	"	2.5	NNW
3	Kunkler, Beef and Sheep field	8N-10W-29-NE	"	Sand dune	1.6	W
4	Sunset Lake Dunes	7N-10W-9-SW	Pine	" "	3.6	SSW
5	Holmes-Seppa, Beef pasture	7N-10W-21-SE	Pasture	" "	5.0	S
6	Kaino, Bump bog	7N-10W-27-SE	Blueberry, cranberry	Bog	6.1	S
7	Anderson, South bog	7N-10W-27-SE	Cranberry	"	5.9	S
8	Kaino-Dellinger, West bog	7N-10W-27-NE	"	"	5.9	S
9	" " Main bog	7N-10W-27-NE	"	"	5.9	S
10	Kaino, West bog	7N-10W-27-NE	"	"	5.8	S
11	" East bog	7N-10W-27-NE	Blueberry, cranberry	"	5.8	S
12	Anderson, Howell bog	7N-10W-22-SW	Cranberry	"	5.0	S
13	" Searles bog	7N-10W-22-NW	"	"	4.9	S
14	" Main bog	7N-10W-22-NW-NE	"	"	4.8	S
15	Ballman, Pasture & Hay field	8N-10W-34-SW	Pasture, hay	Upland	1.2	SSW
16	Old Anderson, Dolphin Ave. bog	8N-10W-34-NW	Cranberry	Bog	0.9	SSW
17	Aluminum Co., west	8N-10W-27-SW	Forest	Upland	0.5	WSW
18	Adams, K., Dolphin Ave.	8N-10W-28-NE	Holly	"	0.6	WNW
19	Willener, Heron St.	8N-10W-22-SW	Pasture	Tideland	1.1	NNW
20	" King St. at Youngs Bay	8N-10W-22-NW	"	"	1.5	N
21	" King St. Barn field	8N-10W-22-NE	"	"	1.4	N
22	" Big Barn field	8N-10W-22-SE	"	"	0.9	N
23	" RR and Holbrook Slough	8N-10W-22-NE	"	"	1.3	NNE
24	Reed, US 101 at Holbrook Slough	8N-10W-22-SE	"	"	0.9	NNE
25	" US 101 at Youngs Bay	8N-10W-23-SW	"	"	1.1	NNE
26	Aluminum Co., north	8N-10W-27-NE	Forest	Upland	0.3	NNE

Table 1. (Continued)

Station No.	Sample site name	Township, range, section and quarter	Plant cover	Terrain	Distance and direction from factory site	
					Miles	Direction
27	Aluminum Co., NE, Old Orchard	8N-10W-27-NE	Grass	Upland	0.4	NE
28	Moore, Slough field	8N-10W-26-NW	Pasture	Tideland	0.7	NE
29	" Truck Route field	8N-10W-26-NW	"	"	1.0	ENE
30	Airport Rd. Corner	8N-10W-26-NE	"	"	1.5	E
31	Morrell, Alt. US 101 at Lewis & Clark R.	8N-10W-25-NE	"	"	2.1	ENE
32	Aluminum Co., south	8N-10W-27-SW	Forest	Upland	0.3	S
33	" " SE, Power line	8N-10W-27-SE	Grass	"	0.4	SE
34	Oregon Forestry Dept., Adair Creek	8N-10W-27-SE	Forest	"	0.5	ESE
35	" " " Experimental Plot	8N-10W-26-SE	"	"	1.1	E
36	" " " Clatsop Loop Rd.	8N-10W-26-SE	"	"	1.5	E
37	Morrell, Horse & Beef field	8N-10W-25-SW	Pasture	Tideland	1.9	E
38	Everson, Wm.	8N-10W-36-NW	"	"	1.8	ESE
39	Ft. Clatsop National Memorial	8N-10W-35-SE	Forest, grass	Upland	1.7	ESE
40	Crown, Station 13 on Perkins Rd.	8N-10W-35-SW	Forest	"	1.3	SE
41	Reith, J. Jr., 12 Acre pasture	7N-10W-1-SW	Pasture	Tideland	2.9	SE
42	Kamera Bros., Astoria Bent grass	7N-10W-12-NW	Grass seed	"	3.1	SE
43	Hannu, Astoria Bent grass	7N-10W-12-NE	" "	"	3.6	SE
44	Burkhart, Bridge field	7N-9W-19-NE	Pasture	River valley	5.8	SE
45	" N Dairy field	7N-9W-19-SE	"	" "	6.3	SSE
46	Hartill, Home, East field	7N-9W-31-SW	"	" "	7.7	S
47	Reith, John, Peterson Slough	7N-9W-7-NW	"	Tideland	3.7	SE
48	" " Hill field	7N-9W-6-SW	Pasture, hay	Upland	3.4	SE
49	" " Home, Tidelands field	7N-9W-6-SW	Pasture	Tideland	3.4	SE
50	Seppa, Elk Hay field	7N-9W-6-NW	Hay	Upland	3.2	ESE
51	" Spruce Tree field	7N-9W-6-NW	Pasture	"	3.1	ESE
52	" Church field	7N-10W-1-NE	"	"	3.0	SE
53	" Hill field	7N-10W-1-NE	"	"	2.9	ESE
54	" Barn field	7N-10W-1-NE	"	Tideland	2.8	SE
55	" 15 Acre field	7N-10W-1-NW	"	"	2.4	SE

Table 1. (Continued)

Station No.	Sample site name	Township range, section and quarter	Plant cover	Terrain	Distance and direction from factory site	
					Miles	Direction
56	Seppa, 40 Acre field	7N-10W-1-NW	Pasture	Tideland	2.4	SE
57	Hartill-Nelson, 1st Bench field	8N-10W-36-SE	"	Upland	2.8	ESE
58	" " Tidelands East field	8N-10W-36-SE	"	Tideland	2.6	ESE
59	Kaakenin, Bent grass, East field	8N-10W-36-NE	Grass seed	"	2.5	ESE
60	" Bent grass, West field	8N-10W-36-NW	Grass seed, hay	"	2.1	ESE
61	Olson, R., Red Barn field	8N-9W-30-SW	Pasture	"	2.6	E
62	" Jeffries Slough	8N-10W-25-SE	"	"	2.1	E
63	Leino, Richfield Station	8N-9W-30-NE	"	"	3.1	E
64	Reikkola, Home Place, north	8N-9W-19-SE	"	"	3.6	ENE
65	" Home Place, south	8N-9W-30-NE	"	"	3.5	E
66	Hartill, Cooks Slough east	8N-9W-29-NW	"	"	3.8	E
67	" Cooks Slough west	8N-9W-29-NW	"	"	3.7	E
68	Reikkola, Wireless Rd.	8N-9W-29-SW	"	"	3.9	E
69	Kraft-Hess, Russian Pt. field	8N-9W-20-SE	"	"	4.4	ENE
70	" " Towers field	8N-9W-29-NE	"	"	4.3	E
71	Anderson, Home, Improved field	8N-9W-32-SW	"	Upland	4.2	ESE
72	" East field at Slough	8N-9W-32-SE	"	Tideland	4.3	ESE
73	Kraft, Gate field	7N-9W-5-SE	"	"	4.7	ESE
74	" Spruce Tree field	7N-9W-5-SE	"	"	4.9	ESE
75	Johnson, 12 Acre field at Tucker Slough	7N-9W-9-NW	"	"	5.4	ESE
76	" Tucker Slough field	7N-9W-9-NW	"	"	5.4	ESE
77	" South Levee field	7N-9W-9-NE	"	"	5.8	ESE
78	" North Barn field	7N-9W-9-NE	"	"	5.7	ESE
79	Colvin, East field	7N-9W-14-NE	"	Upland	8.2	ESE
80	Gindroz, Half Mile field	7N-9W-13-SE	"	"	8.9	ESE
81	Henningson, Slough field	7N-9W-4-NE	"	Tideland	5.8	ESE
82	" Hay field	7N-9W-3-NW	Hay	Upland	6.1	ESE
83	Kuppenbender	7N-9W-2-NW	Holly	"	6.8	ESE
84	Carlson, Wallace	7N-9W-2-NW	"	"	7.1	ESE

Table 1. (Continued)

Station No.	Sample site name	Township, range, section and quarter	Plant cover	Terrain	Distance and direction from factory site	
					Miles	Direction
85	JJ Astor Exp. Sta., Machine Shed field	8N-9W-28-NE	Pasture	Tideland	5.4	E
86	" " " " Tideland Pastures 1-6	8N-9W-28-NE & -27-NW	"	"	5.6	E
87	" " " " Farm Home fields	8N-9W-28-NE & -27-NW	Hay, grass	Upland	5.5	E
88	" " " " East fields	8N-9W-27-NW	Holly, etc.	"	5.7	E
89	Lee, Hill field	8N-9W-28-NE	Hay	"	5.3	E
90	" Gravel Dump field	8N-9W-21-SE	Pasture	Tideland	5.1	E
91	Carlson, Victor	8N-9W-24-NW	Holly	Upland	7.9	E
92	Timmerman Orchards	8N-9W-24-NE	"	"	8.5	E

Table 2. Fluorine content of samples of pasture herbage, cranberry leaves and fruit, and foliage of holly, hemlock and spruce, Warrenton area, 1968

Station No.	Sample site name	Fluorine content, dry weight basis (ppm)	Distance and direction from factory site: Miles	Direction
October 3-November 1 -- Pasture Herbage				
1	Tagg, 13th Ave.	5.3	3.1	NNW
2	" Home fields	6.5	2.5	NNW
3	Kunkler	1.7	1.6	W
5	Holmes-Seppa	1.8	5.0	S
19	Willener, Heron St.	3.2	1.1	NNW
22	" Big Barn	3.1	0.9	N
24	Reed, US 101 at Holbrook Slough	1.3	0.9	NNE
28	Moore, Slough field	1.6	0.7	NE
29	" Truck Route	2.3	1.0	ENE
37	Morrell, Horse & Beef	1.2	1.9	E
38	Everson	1.1	1.8	ESE
45	Burkhart, N Dairy field	3.2	6.3	SSE
46	Hartill, Home, East field	1.5	7.7	S
47	Reith, Peterson Slough	1.4	3.7	SE
53	Seppa, Hill field	1.5	2.9	ESE
55	" 15 Acre field	2.6	2.4	SE
61	Olson, Red Barn	3.2	2.6	E
63	Leino, Richfield Station	1.8	3.1	E
64	Reikkola, Home, north	3.7	3.6	ENE
68	" Wireless Rd.	1.7	3.9	E
71	Anderson, Home, Improved	1.8	4.2	ESE
73	Kraft, Gate field	1.9	4.7	ESE
76	Johnson, Tucker Slough	2.8	5.4	ESE
79	Colvin, East field	1.2	8.2	ESE
80	Gindroz, Half Mile field	1.6	8.9	ESE
81	Henningson, Slough field	3.3	5.8	ESE
82	" Hay field	1.7	6.1	ESE
86	Astor Exp. Sta. Tideland Pasture 1	7.8	5.6	E
86	" " " " " 2	1.2		
86	" " " " " 3	1.4		
86	" " " " " 4	1.8		
86	" " " " " 5	2.2		
86	" " " " " 6	2.0		

Station No.	Sample site name	Foliage	Fruit	Distance and direction from factory site: Miles	Direction
October 8-27 -- Cranberry					
7	Anderson, South bog	2.5	1.9	5.9	S
12	" Howell bog	2.2	2.1	5.0	S
13	" Searles bog	2.5	3.5	4.9	S
		9.2	1.5		

Table 2. (Continued)

Station No.	Sample site name		Fluorine content, dry weight basis (ppm)		Distance and direction from factory site	
					Miles	Direction
October 8-27 -- Cranberry			Foliage	Fruit		
14	Anderson, Main bog		3.5	1.9	4.8	S
8	Kaino-Dellinger, West bog		1.7	2.0	5.9	S
9	" " Main bog		2.0	2.0	5.9	S
10	Kaino, West bog		1.9	2.5	5.8	S
11	" East bog		1.7	2.6	5.8	S
16	Old Anderson, Dolphin Ave. bog		1.9	2.0	0.9	SSW
November 1-15 -- Holly			Foliage			
18	Adams, K.		2.6		0.6	WNW
83	Kuppenbender, Eng.-French		2.4		6.8	ESE
83	" Variegated		1.9			
84	Carlson, W., Eng.-French		1.3		7.1	ESE
84	" Variegated		2.3			
88	Astor Exp. Sta., Ore. Select		2.0		5.7	E
88	" " " Mrs. Pilkington		0.2			
88	" " " Rederly		2.3			
88	" " " Silvary		3.6			
91	Carlson, V.		3.1		7.9	E
92	Timmerman		2.6		8.5	E
December 12-13 -- Forest trees			Hemlock	Spruce		
17	Aluminum Co., west	1 yr. (1968)	2.6	2.6	0.5	WSW
		2 yr. (1967)	2.0	4.5		
27	Aluminum Co., Old Orchard	1 yr.	2.3	2.0	0.4	NE
		2 yr.	4.5	2.7		
30	Airport Rd. Corner	1 yr.	---	4.2	1.5	E
		2 yr.	---	5.5		
32	Aluminum Co., south	1 yr.	2.2	2.7	0.3	S
		2 yr.	3.3	2.4		
34	Ore. Forestry Dept., Adair Creek	1 yr.	2.7	2.0	0.5	ESE
		2 yr.	3.2	2.1		
35	Ore. Forestry Dept., Experimental Plot	1 yr.	2.5	3.2	1.1	E
		2 yr.	3.2	4.1		
36	Ore. Forestry Dept., Clatsop Loop Rd.	1 yr.	2.9	1.5	1.5	E
		2 yr.	1.3	7.4		
40	Crown, Station 13	1 yr.	2.1	2.0	1.3	SE
		2 yr.	2.5	4.8		

Table 2. (Continued)

Summary

	Pasture herbage	Cranberry Foliage	Cranberry Fruit	Holly	Hemlock 1 yr.	Hemlock 2 yr.	Spruce 1 yr.	Spruce 2 yr.
No. samples	33	10	10	11	7	7	8	8
Range, ppm	1.1-7.8	1.7-9.2	1.5-3.5	0.2-3.6	2.1-2.9	1.3-4.5	1.5-4.2	2.1-7.4
Avg., ppm	2.4	2.9	2.2	2.2	2.5	2.9	2.5	4.2

Table 3. Fluorine content of samples of pasture herbage, Warrenton area, 1969

Station No.	Sample site name	Fluorine content, dry weight basis			Distance and direction from factory site	
		May 15-23	June 25-July 3	Sep. 8-10	Miles	Direction
		ppm	ppm	ppm		
1	Tagg, 13th Ave.	2.9	2.9	0.7	3.1	NNW
2	" Home fields	4.3	1.7	1.8	2.5	NNW
3	Kunkler	8.8	2.3	0.9	1.6	W
4	Sunset Lake	2.0	1.1	2.5	3.6	SSW
5	Holmes-Seppa	0.5	0.7	2.0	5.0	S
19	Willener, Heron St.	1.8	1.4	2.2	1.1	NNW
22	" Big Barn	5.2	0.7	1.5	0.9	N
24	Reed, US 101 at Holbrook Slough	1.8	0.7	1.4	0.9	NNE
27	Aluminum Co., NE, Old Orchard	1.0	1.9	1.5	0.4	NE
28	Moore, Slough field	5.3	3.9	1.4	0.7	NE
29	" Truck Route field	2.2	2.4	2.7	1.0	ENE
33	Aluminum Co., SE, Power Line	1.7	1.1	3.8	0.4	SE
37	Morrell, Horse & Beef	13.1	2.6	3.4	1.9	E
38	Everson	2.3	2.0	3.0	1.8	ESE
39	Ft. Clatsop National Memorial	0.7	0.5	1.5	1.7	ESE
45	Burkhart, N Dairy field	0.7	1.6	1.9	6.3	SSE
46	Hartill, Home, East field	1.2	2.2	3.6	7.7	S
47	Reith, Peterson Slough	0.6	0.9	5.2	3.7	SE
50	Seppa, Elk Hay field	0.6	3.2	3.0	3.2	ESE
51	" Spruce Tree field	0.5	1.6	1.8	3.1	ESE
52	" Church field	0.6	2.1	2.3	3.0	SE
53	" Hill field	0.7	2.6	3.2	2.9	ESE
54	" Barn field		3.7	2.6	2.8	SE
55	" 15 Acre field	0.6	2.0	1.8	2.4	SE
56	" 40 Acre field	0.9	2.5	2.6	2.4	SE
61	Olson, Red Barn	0.8	1.2	3.8	2.6	E
63	Leino, Richfield Station	0.9	1.4	1.8	3.1	E
64	Reikkola, Home, north	2.0	0.6	2.5	3.6	ENE
68	" Wireless Rd.	0.7	0.5	3.5	3.9	E

Table 3. (Continued)

Station No.	Sample site name	Fluorine content, dry weight basis			Distance and direction from factory site	
		May 15-23	June 25-July 3	Sep. 8-10	Miles	Direction
		ppm	ppm	ppm		
71	Anderson, Home, Improved field	0.7	0.7	2.8	4.2	ESE
73	Kraft, Gate field	2.9	1.9	3.0	4.7	ESE
76	Johnson, Tucker Slough	1.3	1.1	4.4	5.4	ESE
77	" S. Levee field		0.9	1.6	5.8	ESE
78	" N. Barn field			2.1	5.7	ESE
79	Colvin, East field	0.6	1.3	3.2	8.2	ESE
80	Gindroz, Half Mile field	3.0	4.8	3.8	8.9	ESE
81	Henningson, Slough field	3.6	1.5	---	5.8	ESE
82	" Hay field		2.0	1.9	6.1	ESE
86	Astor Exp. Sta. Tideland Pasture 1			1.7	5.6	E
86	" " " " " 2		2.0	3.0	5.6	E
86	" " " " " 3			2.9	5.6	E
86	" " " " " 4	0.9	0.8	2.6	5.6	E
86	" " " " " 5			2.8	5.6	E
86	" " " " " 6	0.7		2.9	5.6	E
89	Lee, Hill field	1.0	1.7	2.5	5.3	E

Summary

Number of samples	37	40	44
Range, ppm	0.5-13.1	0.5-4.8	0.7-5.2
Average, ppm	2.1	1.8	2.5

Table 4. Fluorine content of samples of foliage of cranberry, holly, hemlock, spruce, wild blackberry and bracken, Warrenton area, 1969

Station No.	Sample site name	Fluorine content, dry weight basis (ppm)		Distance and direction from factory site	
				Miles	Direction
Cranberry		July 3	Oct. 23-24		
6	Kaino, Bump bog	---	1.0	6.1	S
7	Anderson, South bog	1.8	0.6	5.9	S
8	Kaino-Dellinger, West bog	---	0.7	5.9	S
9	" " Main bog	3.0	0.6	5.9	S
10	Kaino, West bog	1.6	1.4	5.8	S
11	" East bog	1.0	---	5.8	S
12	Anderson, Howell bog	1.3	0.5	5.0	S
13	" Searles bog	1.0	0.7	4.9	S
14	" Main bog, Section 1	---	1.5	4.8	S
14	" " " " 3	1.1	0.6		
14	" " " " 5	---	1.3		
14	" " " " 7	---	0.5		
14	" " " " 8	1.5	---		
14	" " " " 9	---	0.5		
Holly -- **September 25-26**					
18	Adams, English	1.3		0.6	WNW
83	Kuppenbender, Eng.-French	0.7		6.8	ESE
	" Variegated	0.6			
84	Carlson, W., Eng.-French	1.9		7.1	ESE
	" Variegated	0.7			
88	Astor Exp. Sta., Ore. Select	0.7		5.7	E
	" " " Mrs. Pilkington	0.6			
	" " " Rederly	1.4			
	" " " Silvary	1.9			

Table 4. (Continued)

Station No.	Sample site name	Fluorine content, dry weight basis (ppm)	Distance and direction from factory site: Miles	Direction
Holly -- September 25-26				
91	Carlson, V., Variegated	1.7	7.9	E
92	Timmerman, Bailey's Pride	0.6	8.5	E
"	Variegated	0.5		

Hemlock, Spruce, Blackberry, Bracken -- September 25-October 24

Station No.	Sample site name	Hemlock[1/]	Spruce[1/]	Blackberry	Bracken	Miles	Direction
17	Aluminum Co., west	1.3	1.1	2.7	---	0.5	WSW
18	Adams, K., Dolphin Ave.	1.2	1.2	2.3	0.6	0.6	WNW
32	Aluminum Co., south	1.8	1.6	4.0	---	0.3	S
33	" " SE	1.2	1.0	4.2	---	0.4	SE
35	Ore. Forestry Dept. Exp. Plot	0.8	0.7	1.7	---	1.1	E
39	Ft. Clatsop National Memorial	1.2	1.1	2.0	2.1	1.7	ESE
40	Crown, Station 13, Perkins Rd.	0.5	0.3	2.9	2.1	1.3	SE
83	Kuppenbender	2.0	1.3	2.2	1.4	6.8	ESE
88	Astor Exp. Sta.	1.6	0.8	2.4	1.7	5.7	E
91	Carlson, V.	---	---	2.2	0.4	7.9	E
92	Timmerman	1.3	1.3	1.0	0.6	8.5	E

Summary	Cranberry July 3	Cranberry Oct. 23-24	Holly	Hemlock	Spruce	Blackberry	Bracken
Number of samples	8	12	12	10	10	11	7
Range, ppm	1.0-3.0	0.5-1.5	0.5-1.9	0.5-2.0	0.3-1.6	1.0-4.2	0.4-2.1
Average, ppm	1.5	0.8	1.1	1.3	1.0	2.5	1.3

1/ 1969 needles.

Table 5. Fluorine content of samples of pasture grass species, J. J. Astor Experiment Station, 1969

Replication and sampling date	Alta fescue	New Zealand H-1 annual rye grass	Pennlake orchard grass	S-143 orchard grass	Teptoe Reville perennial rye grass
	Fluorine content, dry weight basis				
	ppm	ppm	ppm	ppm	ppm
May 21					
1	1.4	1.1	1.7	1.1	1.1
2	0.8	1.0	0.9	1.2	0.7
3	0.6	1.0	1.1	0.7	0.6
4	1.0	0.9	1.5	1.0	1.0
Average	1.0	1.0	1.3	1.0	0.9
September 9					
1	2.9	0.7	2.5	2.5	4.1
2	0.7	2.9	1.5	1.8	3.0
3	0.5	0.6	0.5	1.3	1.8
4	1.3	1.5	2.3	1.7	3.7
Average	1.4	1.4	1.7	1.8	3.2

Table 6. Fluorine content of samples of pasture herbage, Warrenton area, 1970

Station No.	Sample site name	Fluorine content, dry weight basis					Distance and direction from factory site	
		Apr. 23-May 13	June 9-15	July 15-24	Aug. 11-21	Sep. 22-Oct. 8	Miles	Direction
		ppm	ppm	ppm	ppm	ppm		
1	Tagg, 13th Ave.	5.7	0.4	1.3	0.2	0.2	3.1	NNW
2	" Home pastures	2.5	0.4	1.6	0.2	1.4	2.5	NNW
3	Kunkler	5.7	0.4	---	---	---	1.6	W
5	Holmes-Seppa	4.4	1.1	---	---	---	5.0	S
15	Ballman				0.2	1.4	1.1	SSW
19	Willener, Heron St.	2.1	1.1	1.4	0.2	1.6	1.1	NNW
20	" King St. at Youngs Bay		1.4	2.8	5.4	0.2	1.5	N
21	" King St. Barn			1.7	1.6	1.6	1.4	N
22	" Big Barn	1.3	0.2	1.3	0.2	7.9	0.9	N
23	" Holbrook Slough			0.1	0.2	5.1	1.3	NNE
24	Reed, US 101 at Holbrook Slough	2.2	0.1	0.1	0.1	---	0.9	NNE
25	" US 101 at Youngs Bay					2.1	1.1	NNE
27	Aluminum Co., NE, Old Orchard	1.5	0.7	0.2	0.2	1.8	0.4	NE
28	Moore, Slough field	3.2	0.4	1.2	0.1	0.2	0.7	NE
29	" Truck Route field	2.5	1.4	12.0	0.2	1.9	1.0	ENE
31	Morrell, Alt. 101 at L.&C. River	3.9	0.1	0.1	0.1	0.2	2.1	ENE
33	Aluminum Co., SE, Power Line	2.4	0.1	0.2	0.1	1.6	0.4	SE
37	Morrell, Horse & Beef field	7.5	0.8	0.2	0.2	2.5	1.9	E
38	Everson, Wm.	7.2	0.2	1.0	0.2	2.5	1.8	ESE
39	Ft. Clatsop National Memorial	2.6	1.5	1.3	0.1	0.9	1.7	ESE
41	Reith, John Jr.			0.8	0.2	0.2	2.9	SE
42	Kamera Bros.			0.1	0.2	0.2	3.1	SE
43	Hannu			0.1	0.1	1.5	3.6	SE
44	Burkhart, Bridge field					2.7	5.8	SE
45	" N Dairy field	4.1	0.2	1.6	0.2	7.8	6.3	SSE
46	Hartill, Home, East field	0.7	1.4	0.2	0.2	1.1	7.7	S
47	Reith, J., Peterson Slough	2.6	0.2	0.2	0.2	2.3	3.7	SE
48	" Hill field	1.4	0.1	4.1	---	1.9	3.4	SE
49	" Home, Tidelands field				0.2	1.6	3.4	SE

Table 6. (Continued)

Station No.	Sample site name	Fluorine content, dry weight basis					Distance and direction from factory site	
		Apr. 23-May 13	June 2-15	July 15-24	Aug. 11-21	Sep. 22-Oct. 8	Miles	Direction
		ppm	ppm	ppm	ppm	ppm		
50	Seppa, Elk Hay field	3.1	0.1	0.9	0.2	2.5	3.2	ESE
51	" Spruce Tree field	3.3	0.1	0.1	0.2	3.2	3.1	ESE
52	" Church field	3.0	0.1	1.3	0.1	4.3	3.0	SE
53	" Hill field	4.0	0.1	2.9	0.1	7.4	2.9	ESE
54	" Barn field	3.7	0.2	0.9	0.2	5.7	2.8	SE
55	" 15 Acre field	4.8	0.1	0.1	0.2	0.2	2.4	SE
56	" 40 Acre field	3.5	0.1	0.3	0.2	1.8	2.4	SE
57	Hartill-Nelson, 1st Bench field	3.0	0.1	1.5	0.1	1.0	2.8	ESE
58	" " Tidelands East	6.0	1.3	1.7	0.2	1.5	2.6	ESE
59	Kaakenin, East field				0.2	0.2	2.5	ESE
60	" West field			2.6	0.2	0.2	2.1	ESE
61	Olson, R., Red Barn field	5.5	0.3	1.8	0.2	2.3	2.6	E
62	" Jeffries Slough field	4.0	1.9	1.6	0.2	1.6	2.3	E
63	Leino, Richfield Station	3.9	2.0	0.2	0.2	2.2	3.1	E
64	Reikkola, Home Place, north			0.2	0.1	1.6	3.6	ENE
65	" Home Place, south	3.0	0.7	0.1	0.2	6.5	3.5	E
66	Hartill, Cooks Slough east	4.2	2.8	0.2	2.4	0.2	3.8	E
67	" Cooks Slough west				0.2	0.2	3.7	E
68	Reikkola, Wireless Rd. field	4.4	2.0	0.1	2.1	0.2	3.9	E
69	Kraft-Hess, Russian Pt. field	3.4	1.3	0.1	0.2	0.2	4.4	ENE
70	" " Towers field	1.3	0.9	0.1	0.6	0.2	4.3	E
71	Anderson, Home field	1.8	0.6	0.9	0.3	0.2	4.2	ESE
72	" East field			0.1	1.1	0.2	4.3	ESE
73	Kraft, Gate field	3.5	3.4	1.1	4.2	0.2	4.7	ESE
74	" Spruce field			1.9	1.5	0.2	4.9	ESE
75	Johnson, 12 Acre field			1.0	---	0.2	5.4	ESE
76	" Tucker Slough field	1.8	1.4	3.5	0.7	0.2	5.4	ESE
77	" South Levee field	1.2	1.5	1.6	1.1	0.2	5.8	ESE
78	" North Barn field	1.5	1.5	2.1	2.1	0.2	5.7	ESE

Table 6. (Continued)

Station No.	Sample site name	Fluorine content, dry weight basis					Distance and direction from factory site	
		Apr. 23-May 13	June 9-15	July 15-24	Aug. 11-21	Sep. 22-Oct. 8	Miles	Direction
		ppm	ppm	ppm	ppm	ppm		
79	Colvin, East field	2.5	1.4	0.1	0.2	0.2	8.2	ESE
80	Gindroz, Half Mile field	1.8	2.4	1.5	1.8	0.2	8.9	ESE
82	Henningson, Hay field	1.8	1.6	3.1	1.1	0.1	6.1	ESE
85	Astor Exp. Sta. Machine Shed field	2.0	1.3	0.2	1.9	1.4	5.4	E
86	" " " Tidelands Past. 1	6.2	1.5	1.9	1.9	0.2	5.6	E
	" " " " " 2	2.2	2.1	0.4	2.7	0.2	5.6	E
	" " " " " 3	2.6	2.1	1.7	1.8	0.2	5.6	E
	" " " " " 4	3.3	1.9	0.2	1.5	0.2	5.6	E
	" " " " " 5	3.2	1.5	1.0	2.9	1.4	5.6	E
	" " " " " 6	2.3	2.6	1.1	2.5	1.7	5.6	E
	" " " " " 7	2.2	1.2	0.7	---	---	5.6	E
89	Lee, Hill field	1.5	0.1	1.2	0.2	0.2	5.3	E
90	" Tidelands Gravel Dump field	2.5	1.5	3.0	0.2	0.2	5.1	E

Summary

Number of samples	54	55	63	64	67
Range, ppm	0.7-7.5	0.1-3.4	0.1-12.0	0.1-5.4	0.1-7.9
Average of all samples	3.2	1.0	1.2	0.8	1.5
Average - 49 fields sampled 5 times	3.2	1.1	1.3	0.8	1.7

Table 7. Fluorine content of samples of cranberry foliage and fruit, August 12-13, 1970

Station No.	Sample site name	Fluorine content, dry weight basis		Distance and direction from factory site	
		Foliage	Fruit	Miles	Direction
		ppm	ppm		
6	Kaino, Bump bog	---	---	6.1	S
	Section 3	1.1	7.9		
	" 8	1.3	1.3		
7	Anderson, South bog	---	---	5.9	S
	Section 2	1.3	0.2		
8	Kaino-Dellinger, West bog	---	---	5.9	S
	Section 1	1.4	2.4		
	" 3	0.9	0.5		
9	Kaino-Dellinger, Main or East bog	---	---	5.9	S
	Section 2	1.6	3.1		
	" 3	2.2	2.4		
10	Kaino, West bog	---	---	5.8	S
	Section 1	0.1	4.7		
	" 4	0.1	3.5		
11	Kaino, East bog	---	---	5.8	S
	Section 1	2.3	2.1		
	" 4	0.6	2.8		
12	Anderson, Howell bog	---	---	5.0	S
	North section	1.2	3.0		
13	Anderson, Searles bog	---	---	4.9	S
	South section	0.9	3.8		
14	Anderson, Main bog			4.8	S
	Section 1	0.1	1.6		
	" 3	0.9	0.2		
	" 5	1.3	1.0		
	" 7	1.0	2.1		
	" 9	1.2	4.3		
Summary					
Number of samples		18	18		
Range, ppm		0.1-2.3	0.2-7.9		
Average F content		1.1	2.6		

Table 8. Average fluorine content of pasture herbage from fields in different geographical portions of the Warrenton area, 1970

Classification	Number of samples	Fluorine content, dry weight basis				
		Apr. 23-May 13	June 9-15	July 15-24	Aug. 11-21	Sep. 22-Oct. 8
		ppm	ppm	ppm	ppm	ppm
Terrain						
Tidelands	36-49	3.4	1.2	1.2	0.9	1.3
Uplands	16-18	2.5	0.7	1.3	0.3	2.1
Distance from factory site						
0-2 miles	11-14	3.5	0.7	1.8	0.6	2.2
2.1-4 "	20-28	3.8	0.7	1.0	0.3	1.9
4.1-6 "	18-20	2.6	1.5	1.2	1.5	0.5
6.1-8.9 "	5	2.2	1.4	1.3	0.7	1.9
River valley						
Lewis and Clark	20-27	3.9	0.5	1.1	0.2	2.2
Youngs	23-27	2.6	1.6	1.1	1.4	0.6
Section						
NNW-N-NNE	5-8	2.8	0.6	1.3	1.0	2.5
NE-ENE	5-6	2.9	0.8	2.3	0.2	1.0
E	17-18	3.5	1.5	0.9	1.2	1.2
ESE	15-20	3.0	1.1	1.5	0.8	1.1
SE	7-12	3.1	0.1	0.8	0.2	2.0

Table 9. The range, average, and frequency distribution of the fluorine contents of pasture herbage, Warrenton area, 1968-1970

	1968	1969			1970				
	Oct. 3-Nov. 1	May 15-23	June 25-July 3	Sep. 8-10	Apr. 23-May 13	June 9-15	July 15-24	Aug. 11-21	Sep. 22-Oct. 8
Range, ppm	1.1-7.8	0.5-13.1	0.5-4.8	0.7-5.2	0.7-7.5	0.1-3.4	0.1-12.0	0.1-5.4	0.1-7.9
Average, ppm	2.4	2.1	1.8	2.5	3.2	1.0	1.2	0.8	1.5
No. of samples	33	37	40	44	54	55	63	64	67
Frequency classes	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %	No. %
0-0.6 ppm F	0	7 19.0	3 7.5	0	0	23 41.8	25 39.7	45 70.3	31 46.2
0.7-1.3 " "	5 15.2	14 37.8	12 30.0	2 4.5	4 7.4	10 18.2	16 25.4	4 6.3	3 4.5
1.4-2.0 " "	15 45.4	5 13.5	13 32.5	14 31.8	9 16.7	16 29.1	13 20.6	7 10.9	17 25.4
2.1-2.7 " "	3 9.1	2 5.4	7 17.5	10 22.7	13 24.1	4 7.3	2 3.2	5 7.8	8 11.9
2.8-3.4 " "	6 18.2	3 8.1	2 5.0	11 25.0	9 16.7	2 3.6	4 6.3	1 1.5	1 1.5
3.5-4.1 " "	1 3.0	1 2.7	2 5.0	5 11.4	8 14.8	0	2 3.2	0	0
4.2-4.8 " "	0	1 2.7	1 2.5	1 2.3	4 7.4	0	0	1 1.6	1 1.5
4.9-5.5 " "	1 3.0	2 5.4	0	1 2.3	1 1.8	0	0	1 1.6	1 1.5
5.6-6.2 " "	0	0	0	0	4 7.4	0	0	0	1 1.5
6.3+ " "	2 6.1	2 5.4	0	0	2 3.7	0	1 1.6	0	4 6.0
Totals	33 100.0	37 100.0	40 100.0	44 100.0	54 100.0	55 100.0	63 100.0	64 100.0	67 100.0

H

AMAX PACIFIC ALUMINUM CORPORATION

1600 S. W. 4TH AVENUE • SUITE 250
PORTLAND, OREGON 97201

(503) 228-5282

May 16, 1974

(copy of letter from Amax to consultants)

Amax Pacific Aluminum Corporation proposes to build a primary aluminum reduction plant at Warrenton, Oregon.

As an integral part of the planning process for this plant, the Amax staff, with the assistance of many consultants, have prepared an Environmental Impact Assessment Report. This report has proven invaluable to Amax, and many planning and engineering changes have resulted in order to obviate or mitigate both real and possible adverse impacts of the proposed plant.

The proposed plant will not require any Federal Permit, (there will not be any discharge of process water) and preparation of an Environmental Impact Statement is not required. The Oregon Department of Environmental Quality have requested Amax to submit their Environmental Impact Assessment Report as a "Special Study" supplement to the Amax Permit Application.

This final report, will consist of two volumes; the Amax prepared Assessment Report and a separate appendice volume containing the complete reports from all consultants. Both these volumes, as part of the Amax permit application, will become public documents.

In order to obtain an assessment of the potential impact of the proposed plant on ambient air quality, Amax engaged Dr. H. E. Cramer (H. E. Cramer Company, Inc. Salt Lake City, Utah) to calculate the maximum short-term and long-term concentrations resulting from the discharges of sulphur dioxide, particulates, and fluorides to the atmosphere during plant operation. The Cramer Report becomes an integeral part of the Amax permit application.

The Cramer report provided significant data on the calculated impact on ambient air quality of the emission from the proposed plant. The Cramer report can provide a data base on which professional evaluations might be made relative to the effects of fluorides on vegetation and animals.

Amax wishes to encourage professionals recognized as experts in the field of fluoride effects to prepare such evaluations. Amax will use these evaluations in the final version of their Environmental Impact Assessment Report. This document would contain summaries of evaluation reports, excerpts from evaluation reports or reference to evaluation reports. All evaluation reports will be included in the appendice volume to the Amax report.

I enclose a report, dated November 8, 1973. This report from H. E. Cramer will be replaced in June 1974 by a similar report based on different emission data. This emission data will change to reflect the lower emission levels necessary for the proposed plant to conform to the fluoride emission standards of the State of Oregon. This report is attached as being representative of the information available on which to prepare professional evaluation of fluoride effects.

Will the forthcoming report from H. E. Cramer provide sufficient information to prepare a report evaluating fluoride effects on (vegetation, animals, marine life)?

Would you be willing to prepare such a report?

Should other information be necessary to you, please contact me by telephone. Possibly we might have the additional information you seek.

Would a visit to the plant site and vicinity by advisable? This office can arrange such a trip at your convenience.

Unfortunately some time pressure exists. To expedite publication of the Amax report and appendice volume it is necessary to receive your report as soon as possible after your receipt of the forthcoming Cramer report.

I would sincerely appreciate your earliest response to this request. A telephone call would suffice.

Yours very truly,

Ian R. Macdonald

IRM:as

POTENTIAL IMPACT OF FLUORIDES AND SULFUR DIOXIDE ON VEGETATION IN THE VICINITY OF A PROPOSED AMAX ALUMINUM PLANT AT WARRENTON, OREGON

The potential impact of fluoride, particulates, and sulfur dioxide on vegetation in the vicinity of a proposed AMAX Aluminum Plant at Warrenton, Oregon was evaluated. The evaluation was based on projected ground level fluoride, particulate, and SO_2 concentration as calculated in the Cramer and Bowers report "Calculated Impact on Ambient Air Quality of Fluoride, SO_2 and Particulate Emissions from a Proposed AMAX Aluminum Plant at Warrenton, Oregon (1974)"; and on the Compton "Special Report 335 (1971): Fluoride Levels in Plants of the Warrenton Area, 1968-1970." The Compton report provided data on the kinds of plants growing in the area.

In order to evaluate the potential impact, four types of data are needed for fluorides and sulfur dioxide.

(1) The atmospheric concentrations at which plant injury might be expected.

(2) The geographic area at which toxic concentrations are projected.

(3) The species of plants growing in this area.

(4) Fluoride concentrations in forage.

A. Fluoride

1. Atmospheric fluoride concentrations at which plant injury might be expected.

Numerous variables influence the concentration threshold at which plant injury might be expected. Most important among these are: The concentration and duration of exposure (i.e., "Dose"), the rate of accumulation, stage of plant maturity (sensitivity), precipitation and moisture relations, temperature

and, of course, the genetic sensitivity of the species, variety, or even the individual plant.

Allowing for these variables, we can make only broad generalizations, but they will still be useful in evaluating the potential impact. Meteorological parameters are also subject to considerable variation so will modify the degree of exposure at any one site. Hence, both biological and metereological parameters interact to determine the actual impact in the field. They may enhance each other, or tend to cancel each other out.

With the above qualifications, injury to the very most sensitive plant species, including some gladiolus varieties, the Chinese apricot variety, and Italian prune, might be expected to occur following a 30 day exposure to as little as an average of 0.1 to 0.2 µg F/m^3. Peach fruits might also show soft suture injury at these concentrations if the exposures occurred at a critical period of development.

These concentrations are lower than indicated by McCune[1/] as being injurious to these species, but the varieties considered tend to be more sensitive than those treated by McCune. My projections are quite conservative though, and should provide a limit below which no one would expect any injury.

More realistically, over twice this concentration, or about 0.4 to 0.5 µg F/m^3 for a 30 day average would more commonly be regarded as a threshold value for such sensitive species as most other gladiolus and apricot varieties and Ponderosa pine. Oregon grape and Western larch could also be included in this category. Other plants generally regarded to be "sensitive" would not be likely to show any effects at less than 0.5 to 1.0 µg F/m^3 for 30

1/ McCune, D. C. 1971. Effects of fluoride on vegetation In Biological Effects of Atmospheric Pollutants: Fluorides. National Academy of Sciences.

days -- and then only if exposed during sensitive stages of growth.

Less sensitive species including other fruit crops, blueberries, cranberries, and conifers have still higher thresholds. Vegetable crops, alfalfa, and pasture species are far more tolerant of fluorides, and I have never seen these species injured even in areas where sensitive plants have been all but defoliated.

It must be stressed that the above is based on 30 day averages. Data available do not preclude the occurrence of much higher fluoride concentrations for briefer periods. Twenty four hour or even 2 hour exposures could exceed 1 or 2 $\mu g/m^3$, or more, even though the 30 day average did not exceed 0.1 ppm. A single such exposure could injure sensitive plants at critical stages of development (such as needle emergence of pines).

2. The area at which toxic concentrations are projected.

The geographic area projected to be exposed to fluoride concentrations above 0.5 $\mu g/m^3$ are essentially limited to the factory site. From a practical standpoint, this could also be said for 0.2 $\mu g/m^3$ since the only calculated higher values would not occur during the growing season. During the winter, 0.2 $\mu g\ F/m^3$ might be reached up to roughly 1/2 mile from the site. Relating this to Compton's vegetation sampling sites, we see that this could include his sites 26 and 27.

The 0.1 $\mu g\ F/m^3$ isopleth extends roughly 1 mile beyond the factory site, and the area includes Compton's sites 16, 17, 18, 22, 24, 26, 27, 28, 29, 32, 33, 34, and 35.

3. Plant species growing in the area.

Based on the Compton report, the only sensitive plants growing in the area might be included under the category "forest." Ponderosa pine, the most sensitive forest species, would normally not be expected to occur west

of the Cascade Mts. in Oregon so should present no problem. Douglas fir would be the most sensitive species likely to be found at the "forest" sites. "Forest" occurs at site 26, which may be exposed to 0.2 µg F/m^3. Since Douglas fir is not likely to be injured at less than 0.5 µg F/m^3, no impact would be expected to this species in the area.

Furthermore, since all the species surveyed by Compton are more tolerant than Douglas fir, none would be expected to show any injury from fluoride.

As to growth responses, it is possible that the low fluoride concentrations might cause some stimulation of growth, but this would be so slight as to make measurements difficult, if not impossible.

The Compton report does not specify all the different kinds of plants found in the Warrenton area. It only includes the major species growing at the study sites. Consequently, other, more sensitive plants, might occur in the area. This could include ornamental plants such as gladiolus or back-yard fruit trees. Because of the proximity to the ocean though, I doubt any apricot trees would be grown. Gladiolus, on the other hand, would be expected to be found. While not of commercial importance, they should not be ignored. If grown, the more sensitive varieties might be injured as far as 1 mile from the factory site.

One other possibility of injury should be reiterated. This is the possible elevation in concentrations for periods less than 30 days. If the wind were to persist in one direction for several hours, (as indicated in Cramer's Table 2-10), and especially if in excess of, say, 7 mph, toxic concentrations of fluorides could be transported for a distance of several miles.

4. Fluoride concentrations in forage.

Data provided by McCune and others give a basis for calculating, in a general way, the amount of fluoride that might be expected to occur in forage exposed to various fluoride concentrations. Using these data, it is apparent that even considering particulate concentration, fluoride levels are not likely to exceed the generally accepted threshold of 40 ppm even adjacent to the factory site.

While this is out of my area of "expertise", it is such an area of potential impact to vegetation, and, since pasture is such an important crop in the Warrenton area, I felt that the potential impact (or lack thereof) should be mentioned.

B. Sulfur Dioxide

The maximum concentration of SO_2 projected was a 3-hour maximum of 150 $\mu g/m^3$. This is only 12.5% of the 3-hour secondary air quality standard. In my experience, even 100% of the standard is completely non-injurious to the most sensitive vegetation. Thus, the calculated concentrations are well below any injury threshold and completely safe for any plant species.

Furthermore, I have never observed any SO_2 injury around aluminum plants even in days and in areas where there were virtually no emission controls.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the Cramer and Compton reports, no impact on vegetation is anticipated from fluorides in the vicinity of the proposed AMAX Aluminum Plant at Warrenton, Oregon.

This conclusion needs to be qualified though in that the reports do not provide all the needed data for a final analysis. Most obviously, a few plant varieties may occur in the area that are more sensitive than those

listed by Compton. While these plants would probably not be prevalent they should be considered.

Secondly, plants can be injured by exposure to fluoride for periods of only a few hours, or even less, if concentrations are sufficiently high. A 30 day exposure to concentrations of 0.1 to 0.2 μg F/m^3 does not preclude the occurrence of concentrations 10 times this (or more) for brief periods during which injury could occur. Such exposures are entirely probable when air movement is in one direction for several hours successively. Cramer's data suggest that such conditions are fairly common. Therefore, some minor injury is anticipated to the most sensitive species perhaps as far as 2 or 3 miles (or perhaps more) from the factory site, despite the implications based on 30 day averages.

Nevertheless, based on the documents examined, the impact projected on vegetation would seem to be minimal and insignificant. But because of the uncertainty of this judgement, I would recommend that further calculations be made:

(1) Specifically, it would be helpful to calculate isopleths for the projected maximum 2 hour averages and 24 hour averages, and determine how many times a month such peaks might be expected. From a practical standpoint, it would only be necessary to calculate these for the growing season of April through September.

Taking the reverse approach, it would also be useful to know the number of hours that atmospheric fluoride concentrations might exceed, say, 1 and 5 $\mu g/m^3$ over a radius of 1 mile and 2 miles from the factory site. This would not add much to the first approach though, and I doubt that the mathematical programs would be available to calculate this.

(2) In order to accurately pinpoint the hazards to vegetation, it is essential to know the exact plant species and varieties growing in the area -- ornamental as well as commercial species. This can only be done by a more explicit survey than reported by Dr. Compton. Such a survey should mostly attempt to locate the species most sensitive to fluorides.

(3) Such a survey would also define the presence and degree of severity of any disorders present that might cause injury symptoms mimicing fluoride injury. Describing and documenting such injury by photographing such symptoms prior to the beginning of operations is extremely valuable to future diagnosis. It provides the single most valuable safeguard against unfounded allegations of damage in future years.

Prepared by

Michael Treshow

Michael Treshow
Consulting Plant Pathologist

COMMENTS ON "CALCULATED IMPACT ON AMBIENT AIR QUALITY OF FLUORIDE, SO_2 AND PARTICULATE EMISSIONS FROM A PROPOSED AMAX ALUMINUM PLANT AT WARRENTON, OREGON"

Sulfur Dioxide

Based upon the wind-direction persistence data of Tables 2-10 and 2-11, it seems highly unlikely that SO_2 exposures of greater than 8 hours will occur. Thus, the question of acute exposures to SO_2 would fall within an exposure period of 8 hours or less (e.g., 6-8 hours). But the 8-hour predicted maximum (ca. 0.052 ppm, pg. 25) is about one-fifth that given by O'Gara as the threshold for injury to alfalfa in 4 hours, and the 3-hour maximum (ca. 0.063 ppm) is about one-fourth. Bennett and Hill found a reduction in photosynthesis of alfalfa and barley at concentrations of 0.2 to 0.3 ppm SO_2 for 2 hours, far above any of the predicted values for SO_2. With respect to the 24-hour maximum value (Figure 3-1), the threshold concentration for plant injury does not appear to have been reached at 0.042 ppm. Furthermore, the predicted long-term average SO_2 concentration (0.0019 ppm, Figure 3-1) is far below the annual average reported to be detrimental to plant life (0.02 ppm) by Guderian at Biersdorf, Germany.

One should also take into account the fact that portions of the exposures would occur in the dark and are assumed to be less phytotoxic than those in the light.

Particulates

In general, it is difficult to judge the effects of particulate matter on plants if one does not know their composition. However, it appears that fluoride represents only a small part of the total particulate matter emitted. If we can assume that this is correct and that the fluoride-containing portion of the total particulate emission is relatively insoluble, there is no reason to expect vegetation

injury at the levels predicted. But, it should be borne in mind that it may contribute to the amount of fluoride on or in the vegetation with respect to food for herbivores.

Gaseous Fluoride

One deficiency in the Cramer and Bowers report is the fact that they did not address themselves to short-term exposures (i.e., those that seem reasonable in accordance with the persistence data). Because of low persistence (less than 8 hours), one should know the probability that at some point at or beyond the plant boundary, in a 4-hour averaging period, the concentration of gaseous fluoride will be equal to or greater than 8 $\mu g/m^3$ (cited by Bennett and Hill as the threshold for reduction of photosynthesis in alfalfa and barley) or other comparable dosages.

The annual average gaseous fluoride concentrations (Figure 3-3) are less useful than the monthly means given in Table 3-5. If the growing season is assumed to cover the period from March through September, mean concentrations as high as 0.5 $\mu g\ F/m^3$ can occur, but there is no way for one to establish the gradient of fluoride concentrations beyond the property lines. Because of the persistence data, the monthly averages are probably more useful in assessing the hazard of fluoride accumulation in forage rather than the direct effects of fluoride on plants themselves. Therefore, one should calculate the probable occurrence of these monthly maxima (one chance in 10 -- one in 1000?). The kind of information that can be gathered from a plot of the cumulative frequency distribution of monthly means at the points indicated in Table 3-5 for the months of March through September would be useful in assessing the risk of injury to susceptible vegetation. Based upon work cited in the National Academy of Sciences document on fluorides (1971) and more recent work by Dr. G. Israels of the University of Maryland (1974), the values of coefficients relating fluoride in forage to ambient air concentrations

may vary by a factor of 2. Values at or near 0.5 $\mu g/m^3$ of gaseous fluoride could be associated with fluoride accumulations in forage crops that result in concentrations greater than 35-40 ppm, the annual standard established for the maximum fluoride concentration in forage in several states.

D. C. McCune

L. H. Weinstein

August 21, 1974

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EVALUATION OF PREDICTED AMBIENT AIR QUALITY DATA IN THE VICINITY OF WARRENTON, OREGON ON FORAGE FLUORIDE LEVELS AND VISIBLE FOLIAR FLUOROSIS

Donald F. Adams
Consultant

Prepared for

American Metal Climax, Inc.

November 16, 1973

EVALUATION OF PREDICTED AMBIENT AIR QUALITY DATA IN THE VICINITY OF WARRENTON, OREGON ON FORAGE FLUORIDE LEVELS AND VISIBLE FOLIAR FLOUROSIS

Donald F. Adams

INTRODUCTION

The "Cramer Report" (TR-73-408-02, 8 October, 1973) uses a meteorological model to provide estimates of locations and levels of maximum monthly average ground-level gaseous fluoride concentrations (Cramer Table 3-4) for each month of the year. In addition two separate estimates for particulate and total fluoride are provided for two typical months (May and December) (Cramer Table 3-5). These two tables provide the data base upon which the following considerations of forage fluoride accumulation and visible foliar effects upon sensitive plants are based. In addition, Figures C-1 through C-12 (Cramer Report) provide the monthly isopleths for average ground-level gaseous fluoride concentrations.

The manner in which the model predicts the particulate and gaseous fractions at ground-level will influence the levels of fluoride which will be predicted on receptor vegetation surfaces. This will be more significant with resepect to pasture forages where the total fluoride accumulated by the forages will have an effect upon the cattle ingesting the forage (or the hay produced from that forage). The particulate will not be of much significance with respect to the potential fluoride-induced foliar necrosis on sensitive vegetation. For these reasons, the diffusion model ground-level concentration predictions of Cramer will be treated separately for pasture forages and for potential foliar necrosis.

Inadequate data describing field studies are available to provide better than a two- to four-fold estimate of effect from any given average atmospheric concentration. In addition, it has been the observation of this writer from numerous field studies that the atmospheric concentrations predicted by diffusion models are never measured in the field. The models tend to overstate the measured concentrations by at least a factor of two and may in some instances overstate these concentrations by as much as ten-fold. Therefore it is emphasized at this point that significant uncertainties exist between the atmospheric model which predicts a ground-level concentration, field studies which measure ground level concentrations, and the application of these atmospheric concentrations to predict the level of fluoride accumulation by vegetative tissue exposed to these concentrations both under controlled conditions in the laboratory and in the field under widely varying climatological conditions.

Many factors including (a) variability in the factors entering into the equation (exposure time) x (average atmospheric concentration) which could all yield the same exposure factor, (b) rate of plant growth at time of exposure, (c) age of the tissue at time of exposure, (d) ambient temperature and humidity at time of exposure, (e) subsequent weathering of the tissue in the field folowing exposure

and prior to sampling for analysis, etc. will combine at various levels of significance to produce different foliar levels and visible effects all apparently produced from the same average ground-level concentration. Much of the available data relating exposure levels to effects have been developed under greenhouse or growth chamber conditions. These non-field environments generally result in test plants which are more sensitive to fluoride than are similar plants grown under the usual range of field conditions.

The state of Washington has adopted a fluoride performance standard for vegetation which defines the permissible levels of fluoride in pasture forage. This regulation permits a one-month maximum of 80 ppm F, a maximum two-month average of 60 ppm F, and a maximum growing season average of 40 ppm F (based upon monthly samples taken throughout the pasture season.

PASTURE FORAGES

Mathematical Relationships Between Ambient Fluoride and Forage Fluoride Levels --

The differential fluoride levels accumulated for forage have been expressed by the equation:

$$\Delta F = KCT \qquad (1)$$

where:
- ΔF = added fluoride in ppm
- T = exposure duration in days
- C = average atmospheric concentration in ug F/m^3
- K = the accumulation constant for the species under consideration - for alfalfa this is assumed to be 2.4 (see "Fluorides", national Academy of Sciences, Washington, D.C., 1972, pg. 127.

If one assumes a set of "worst case" conditions from Cramer's May and December particulate and total fluoride ground-level concentrations predictions and apply them to September which showed the maximum ground-level gaseous concentration, we can estimate a total average fluoride of 1.48 ug/m^3. Further assuming that all of the particulate and gaseous fluorides would be accumulated and retained by the forage tissue at the point of predicted maximum concentration, the maximum calculated forage fluoride using equation (1) above would be approximately 100 ppm. If one assumes that only the gaseous fluoride would be accumulated by the forage, the calculated fluoride increase would approximate 40 ppm. A better estimate would place the resultant forage fluoride somewhere between these limits, based upon equation (1) above.

This would represent the "worst case" condition and these calculated forage levels must be interpreted with considerable care because of the factors noted above including (a) the overprediction of most atmospheric models, and (b) the field conditions which combine to produce lower foliar fluoride levels than are produced under controlled environmental conditions.

Table I provides estimates of forage fluoride increases in alfalfa based upon

calculations using equation (1). These levels represent the maximum levels which might develop in alfalfa at the point of maximum predicted ground-level total fluoride and at several gaseous isopleth contours for 30-day exposure periods. Again, one must consider that these concentrations contain several uncertainties, all of which tend to overstate field-measured conditions.

TABLE I

ESTIMATED Δ FORAGE FLUORIDE

ground-level F, ug/m^3	alfalfa fluoride ppm
1.48	107
0.4	29
0.3	22
0.2	14
0.1	7
0.05	3.6
0.01	0.7

Adjustments in the calculated forage fluoride estimates will be required to account for exposure periods which might be greater or less than 30 days due to drought, rainy periods, rate of pasturage, actual fraction of the particulate fluoride retained by the foliage, etc.

Based upon the empirical equation (1), and considering all of the known variations effecting the validity of the atmospheric model and the weathering of foliage in the field, the "worst case", maximum calculated forage fluoride level is only approximately 25% above the one-month, Washington state, permissible level of 80 ppm. Considering the above cited uncertainties which over-predict the concentrations of fluoride which are actually measured in field-grown forage, the empirical calculations shown in Table I cannot be considered to be significantly higher than the Washington permissible limits for the "worst case condition." Based upon Equation 1, even sites within a 0.6 ug/m^3 isopleth (0.4 ug/m^3 above the highest isopleth shown in the Cramer Report) should average below the 40 ppm ΔF Washington growing season average forage fluoride limit.

Field-Derived Relationships Between Ambient Air and Forage Fluoride --

As noted above, the K coefficients are based primarily on controlled fumigation experiments. Few field-derived data have been published. Furthermore, any published, field data should come from an area of comparable climate to be of maximum predictive value.

Air sampling has been conducted intermittently in the vicinity of the Intalco aluminum plant near Ferndale, Washington for a number of years. Since 1970, sampling has been conducted for ambient gaseous fluorides using the 12-hour bicarbonate tube method. The continuous sampling periods associated with the growing season have ranged from 14 days to approximately 90 days and have covered the months of May through October. The ambient air/forage relationships reported here were obtained during the spring and summer of 1970, 1971, and 1972.

Although Ferndale does not have identical climatological features, it undoubtedly represents the best available data for use in the evaluation of the Warrenton situation. It is obvious that Ferndale will have higher daily maximum temperatures and possibly lower midday relative humidities. Nevertheless, these Ferndale data should provide a meaningful comparison.

Forage samples were routinely obtained every four weeks at or near each of the three air sampling sites. All air concentration data and related forage fluoride levels covering the period of April through October have been used to determine the range of air/forage relationships . These data, following examination, were separated into two groups - spring including May through 14 June, and summer including 14 July through 6 October. No air sampling data were obtained between 15 June and 14 July during any of the three years reported. This data separation is justified due to the obvious differences in ratios show in Figures 1 and 2, wherein the spring air/forage relationships (Figure 1) are significantly lower than the summer relationships (Figure 2).

The spring four-week forage fluoride concentrations ranged from 9 to 28 ppm (on a dry weight basis) for the three year period at the three air sampling sites even though the 14 to 30 day average ambient air (gaseous) fluoride concentrations ranged from 0.11 to 0.95 ug/m^3. Spring rainfall is believed to have reduced the tissue fluoride levels below that which would be predicted by the mathematical relationship shown in Equation 1. These spring forage fluoride levels are also below those found in the same area during the summer when rainfall was at a minimum and the forage was growing at a slower rate.

The summer four-week forage fluoride concentrations ranged from 11 to 70 ppm and were associated with 14 to 30 day average ambient air (gaseous) fluoride concentrations ranging from 0.25 to 0.95 ug/m^3. Figures 1 and 2 show these air/forage relationships. In each figure, in addition to all of the air/forage data points, two dashed, vertical lines are shown. These lines represent (a) the maximum ground level gaseous fluoride predicted for either the spring or summer and the 0.2 ug/m^3 gaseous fluoride isopleth as shown in the Cramer Report.

The upper limit of the scatter in Figure 2 indicates that a monthly average ground level gaseous fluoride concentration of 0.2 ug/m^3 might produce a maximum forage ΔF of approximately 40 ppm under some adverse conditions. These data points further indicate that the average of a number of forage samples taken along the 0.2 ug/m^3 isopleth lines shown in the Cramer Report would be approximately 20 ppm. Even at the predicted point of maximum ground level concentration for September (0.4 ug/m^3), the associated forage fluoride levels should not exceed 80 ppm. This too, would comply with the maximum one-month forage fluoride level provided for in the Washington air quality standards for fluoride.

Based upon the mathematical relationship shown in Equation 1 and the field data from northwestern Washington, Figures 1 and 2, it appears that the predicted ground level concentrations of gaseous fluorides (Cramer Report) will not produce forage fluoride concentrations which would exceed the Washington state fluoride standards. The data derived under comparable field conditions shown in Figures 1 and 2 are believed to provide a more reliable predictive base than estimates of forage fluorides calculated from the available mathematical expression using coefficients derived under closely controlled laboratory conditions.

It is concluded that the Washington state forage standards will not be exceeded when viewed both by the mathematically derived relationships and by actual field measurements obtained in a nearby area. Since the Washington state fluoride standards were established to provide a margin of safety for dairy cattle, the predicted levels or airborne and forage fluorides in the vicinity of the Warrenton plant should pose no threat to dairy cattle.

VISIBLE FOLIAR INJURY.

Conifers and gladiolus are selected as representative of average and worst cases for visible foliar injury. The available data indicate that exposure to an average gaseous concentration of more than 0.6 ug F/m^3 for 10 days is required to produce fluoride markings on the more sensitive conifers during the period of needle elongation. Conifers gradually increase in resistance to fluoride injury throughout the growing season after completion of needle elongation.

Although gladiolus are among the most sensitive species, there is a wide range of response among the gladiolus varieties. Long term exposure at 0.2 ug F/m^3 are known to produce measureable gladiolus leaf tip burn. Thirty-day exposures to 0.4 ug F/m^3 will also produce gladiolus tip burn. In consideration of these demonstrated relationships, sensitive varieties of gladiolus should exhibit more than 5 percent leaf necrosis at all locations of predicted maximum gaseous fluoride ground-level concentrations (Table 3-4). Gladiolus leaf tip burn should also exceed 5 percent within the limits of the 0.2 ug/m^3 isopleths by the end of the growing season. Areas outside of the 0.2 ug/m^3 isopleth should not show above-normal gladiolus leaf tip dieback.

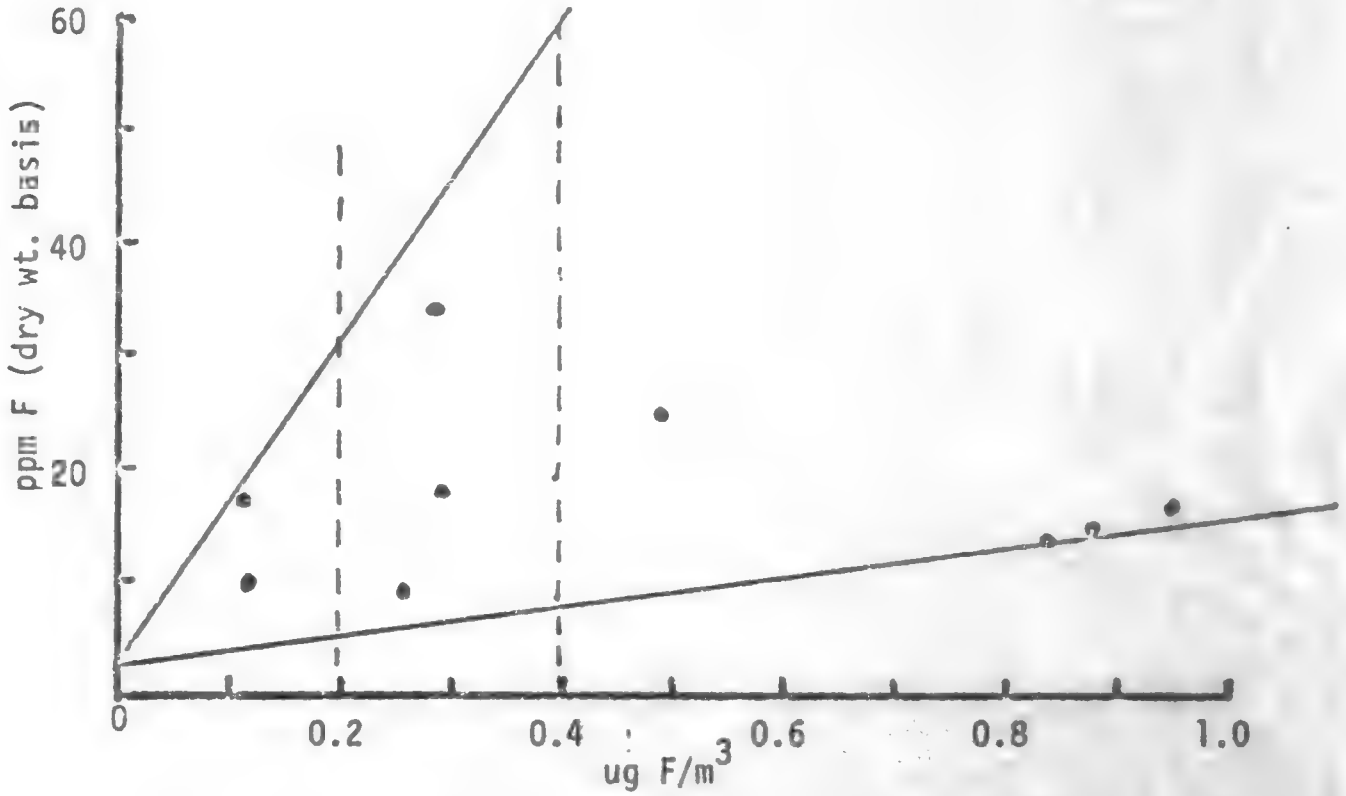

Figure 1. Spring Forage Fluoride Levels Associated With Measured Ambient Gaseous Fluoride Concentrations - Ferndale, WA

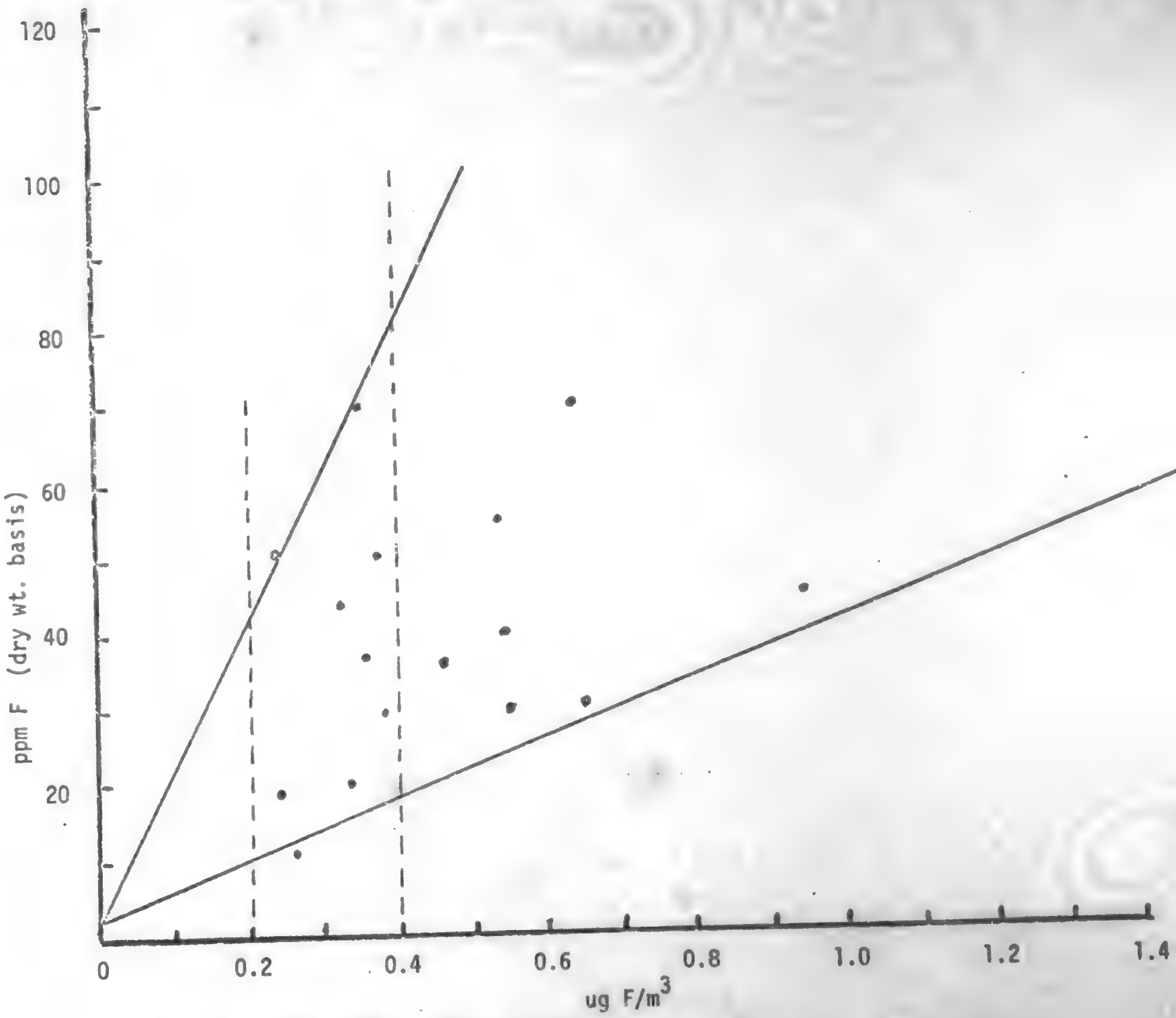

Figure 2. Summer Forage Fluoride Levels Associated With Measured Ambient Gaseous Fluoride Concentrations - Ferndale, WA

REVIEW OF
PREDICTED AMBIENT AIR QUALITY DATA
AND
ASSOCIATED ESTIMATES OF FOLIAR FLUORIDE LEVELS
FOR THE PROPOSED AMAX ALUMINUM PLANT
WARRENTON, OREGON

Donald F. Adams
Consultant

Prepared for

American Metal Climax, Inc.

August 10, 1974

REVIEW OF
PREDICTED AMBIENT AIR QUALITY DATA
AND
ASSOCIATED ESTIMATES OF FOLIAR FLUORIDE LEVELS
FOR THE PROPOSED AMAX ALUMINUM PLANT
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Donald F. Adams
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BACKGROUND

The Cramer and Bowers report of 12 July, 1974 (1) has been reviewed with regard to (a) the AMAX-updated estimates of emissions rates for both particulate and gaseous fluorides and with respect to (b) the monthly time-averaged prediction of fluoride dispersions patterns.

Cramer and Bowers reported a significant contraction of area surrounding the Warrenton site wherein average gaseous and particulate fluorides would exceed 0.05 ug/m^3. This predicted decrease in the area of fluoride dispersion represents the combined result of the anticipated reduction in pounds per day emission rate and associated changes in the elevation above ground and the configuration of the emission points. This predicted decrease in ground level concentrations of fluorides at various distances and directions from the plant site are consistent with the modified input parameters to the diffusion model.

The Cramer and Bowers reports (1,2) provide monthly dispersion maps for fluoride and additionally consider 3 hour maximum average SO_2 values. The choice of these two different time-averaging periods undoubtedly relates to associated state and federal standards for these two pollutants. Some state fluoride standards are related to the fluoride accumulated in forage over monthly periods; whereas one EPA standard for SO_2 has been established for a 3-hour period. Considering the present state of knowledge relating fluctuations in concentrations of atmospheric fluorides over averaging periods of less than 12 to 24 hours and the variable rate of fluoride accumulation by vegetation which is closely associated with variations in climatic conditions, and the state of plant maturation and rate of growth over an exposure period of interest, the use of a monthly performance standard based upon fluoride accumulation in exposed vegetation over a month's exposure period represents best practiced technology.

Despite the lack of quantitative, definitive information relating exposure duration, exposure concentrations, and accumulation of fluoride by plant tissue under the usual day-to-day climatic variations, there are some general guidelines which are known and which may be applied to the estimate of foliar fluoride accumulation under real life conditions as contrasted with the general assumption of a constant monthly-average fluoride exposure level.

DISCUSSION

The accumulation of foliar fluoride and associated extent of visible tissue injury has been studied at realistic ambient air concentrations. The earliest controlled fumigation studies were conducted at constant, continuous exposure levels. The resultant fluoride accumulation in the tissue appeared to be reasonably linear when plotted against "exposure factor" which was defined as "exposure time" multiplied by "exposure concentration" (4) for each species studied.

The development of a continuous gaseous fluoride recorder, however, established conclusively that the fluoride concentrations in the atmosphere fluctuated over a wide range under the influence of meteorological variables as would be anticipated (3). Utilizing this knowledge Adams, et al (5) conducted fumigation experiments in 1956 wherein three levels of fluoride and three exposures periods were used to produce nearly equivalent exposure factors for the three groups of plants under study.

This first study of the interaction of exposure duration versus concentration showed clearly that plants fumigated 8 hours per day at a low fluoride concentration developed greater visible foliar injury than did similar plants exposed twice weekly to higher fluoride concentrations of approximately equal exposure factor. These studies were conducted at three exposure levels of approximately 1.5, 5 and 10 ppb HF for (a) 8 hours per day, 5 days per week (40 hours exposure x 1.5 = 60); (b) 8 hours per day, twice weekly (16 hours exposure x 5 = 80); and (c) 4 hours per day, twice weekly (8 hours exposure x 10 = 80). These studies were conducted over an approximately two-month period. As noted above the higher level intermittent fumigations at equivalent exposure factors produced less visible injury and lower fluoride accumulation in the tissue than did the more continuous, low concentration fumigations.

This work was confirmed in a 1973 publication by MacLean and Schneider (6). The primary difference between these two studies relates to the total time over which the test plants were exposed to HF. The earlier study (5) was directed toward intermittent exposures over the same period of time (approximately two months), whereas the 1973 study exposed one set of plant for ten straight days and the second set of plants was exposed on alternate days for 20 days. In both studies, however, the investigators attempted to produce a constant exposure factor for all test plants. It is not clear from MacLean and Schneider's study whether the foliage from both sets of test plants were sampled on the 21st day or whether the foliage from the 10-day continuously exposed plants was sampled on the 11th day or allowed to grow until day 21 when the foliar from the intermittently fumigated plants was harvested together with the foliage from the continuously fumigated plants. The timing of the sampling of the exposed foliage would have an obvious and significant effect upon the reported foliar fluoride levels. MacLean and Schneider stated that "increases in dry weight of forage and abscission of senescent leaves during the period between cessation of the continuous exposures and time at which comparable HF doses were attained in intermittent exposures would tend

to decrease the F concentration in the foliar tissue" (6). This statement may imply that plants from both treatments were sampled for subsequent F analysis after the completion of the intermittent exposure covering a period of 20 days.

Despite this lack of a definitive description of the foliage sampling protocol, it is extremely significant that these data (6) and the earlier data of Adams, et al. (5) both conclude that under controlled of intermittent versus continuous fumigation at constant exposure factors intermittent exposures at higher concentrations produce lower tissue fluoride concentrations than under continuous lower concentration fumigations, providing the same exposure factor is achieved. These conclusions are of utmost importance in the practical field situation where meteorological conditions vary widely over any given month and produce intermittent rather than continuous fumigations.

These two studies conducted nearly 20 years apart substantiate my earlier conclusion (7) that my calculations of tissue fluoride levels based on the Carmer-Bower report (2) which provided monthly average fluoride dispersion patterns represented "worst case conditions". Thus further consideration of the real world situation in which intermittent fluoride exposures occur at any given site represent the rule rather than the exception must be undertaken to provide more realistic calculations of tissue fluoride levels. Intermittent exposures will produce lower tissue fluoride levels and predictions of short-term (3-hour, for example) ground level fluoride concentrations and the frequency of occurence by month will be necessary to refine the tissue fluoride computations.

Short-term concentrations and their frequency of occurrence are also important from another viewpoint. Field observations and controlled fumigation studies have confirmed that some plant species are especially sensitive to fluorides for a very short period during their maturation. Peaches are particularly sensitive to fluoride fumigation during pit hardening, and less sensitive during other stages of fruit development. Corn shows greater response to a given fluoride dose during pollenation than at other stages of development. Commercial crops - such as cranberry -- in the area should be examined for possible enhanced fluoride response during a short period during fruit development and the limiting fluoride concentrations defined.

CONCLUSIONS

1. The predicted monthly dispersion patterns for fluorides provided in the July 1974 Cramer-Bowers report (1) are lower than those included in their 1973 report (2) because of the reduced fluoride emission rates predicted for the planned improvement in fluoride emission controls.

2. In the real world, variable ground level concentrations of pollutants are known to occur at any given location over any given month,

depending upon frequency of wind direction and speed, variations in atmospheric stability with season of the year, etc.

3. The use of monthly average fluoride concentrations in ambient air to calculate or predict the resultant folir fluoride concentrations represents "worst case" conditions (7).

4. It has been established and confirmed (5,6) that (a) intermittent higher level fluoride exposures are associated with lower total foliar fluoride accumulation and visible injury than are (b) continuous exposures to lower ambient fluoride levels for longer periods of time when both conditions result in comparable "exposure factors" (duration of exposure multiplied by concentration).

5. The only dispersion model data presently available for ground-level fluoride concentrations is for monthly averages. Further utilization of the Warrenton atmospheric dispersion model (1) is required to provide 3-hour estimates of ground-level fluoride concentrations and associated frequency of occurrence data. Until such data are made available, further computations of predicted foliar fluoride levels resulting from anticipated improvements in fluoride control technology at the Warrenton plant would not represent effective use of time.

RECOMMENDATIONS

1. The atmospheric diffusion model for Warrenton should be used to provide predicted short-term (3-hour) ground level fluoride concentrations and the frequency (and duration) of occurrence of these fumigations.

2. Further computations or estimates of monthly accumulation of fluorides in foliar tissue should be deffered until the above noted short-term concentrations and frequency of occurence data become available. Utilization of these new data will provide more realistic predictions of foliar fluoride levels than are presently available (7).

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6. MacLean, D. C., and R. E. Schneider, "Fluoride Accumulation by Forage: Continuous vs. Intermittent Exposures of Hydrogen Fluoride", Journal of Environmental Quality, 2, 501 (1973).

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MICHAEL TRESHOW
CONSULTING PLANT PATHOLOGIST

1788 MILLBROOK ROAD
SALT LAKE CITY 6, UTAH
PHONE 467-1022

August 17, 1974

Mr. Ian R. Macdonald
AMAX, Pacific Aluminum Corp.
1600 S. 4th Ave. Suite 250
Portland, Oregon 97201

Dear Mr. Macdonald,

Pursuent to our telephone conversation yesterday, I talked with Jim Bowers to discuss the potential short term fluoride concentrations around AMAX. According to Jim, the simplest approach mathematically would be to select a point at a given distance from the plant site and determine if concentrations there would exceed a given value. I suggested a point 2 miles out in the direction of the prevailing wind, and set a 2 hour threshold of 10ug/m^3. This was based on the summaries in the National Academy of Sciences "Fluoride" treatise. I also reviewed the reasearch from the Hood River Experiment Station in Oregon (Facteau et al). The analysis of this work by Mel Carter of BYU indicated that a "dose" of at least 40 would be necessary to have any affect on fruit set (This involves ug/m^3 x time. eg 20 ug/m^3 for 2 hours).

Jim said that they had already done enough work to provide the needed information since 1 ug/m^3 would be exceeded for 24 hours (not harmful) beyond the plant boundary once a year, and 2 hour concentrations beyond the boundary would never exceed 7 ug/m^3 for any length of time. If this is true, it is obvious that short term concentrations would be much less 2 miles away, in any direction. However, I can't help question whether concentrations of 10 ug won't be reached (or exceeded) for a few hours from time to time. But I can't really critisize the projections from a mathematical standpoint.

If Jim's projections are correct though, toxic thresholds will never be reached beyond the plant boundary even for 2 hours. Again, assuming the correctness of the short term projections, even the most sensitive plant species known would not be injured or even threated by the AMAX emissions.

Sincerely,

M. Treshow

EVALUATION OF EFFECT ON ANIMAL PRODUCTION AND HEALTH OF PREDICTED FORAGE FLUORIDE NEAR WARRENTON, OREGON

PREPARED AT THE REQUEST OF

AMAX CORPORATION

JULY 1974

BY G. R. SPENCER, DVM, PHD

PULLMAN, WASHINGTON

INTRODUCTION

The purpose of this report is to present an analysis of the potential effects on animals of airborne pollutants from an aluminum reduction factory to be built near Warrenton, Oregon. The data for the analysis were derived from sources as follows:

1. Special Report 335 of the Oregon Agricultural Experiment Station entitled, "Fluorine Levels in Plants in the Warrenton Area, 1968 - 1970" by O. C. Compton, F. W. Adams, Stanley Elliot, Jack H. Wood, D. W. Claypool and R. K. Marsh. (Hereafter called OSU Report)

2. A report by Donald F. Adams of Pullman, Washington entitled "Evaluation of Predicted Ambient Air Quality Data in the Vicinity of Warrenton, Oregon On Forage Fluoride Levels and Visible Foliar Fluorosis"

3. A report prepared by H. E. Cramer Company Inc.,

Salt Lake City, Utah entitled, "Calculated Impact on Ambient Air Quality of Fluoride, SO_2 and Particulate Emissions from a Proposed AMAX aluminum plant at Warrenton, Oregon", dated July 12, 1974. (Hereafter called the Cramer Report of 1974)

4. Two publications of the National Academy of Sciences on fluorides. One entitled, "Fluorides", was published in 1971 by the Committee on Biologic Effects of Atmospheric Pollutants and the other entitled, "Effects of Fluorides in Animals", was from the Committee on Animal Nutrition published in 1974. The latter hereafter will be identified as NAS Effects of Fluorides.

5. Observations and data collected by Dr. W. E. Harris of Puyallup, Wn. on the animal husbandry and disease problems in livestock near Warrenton, Oregon and summarized in a letter of June 11, 1974 to Mr. I. A. Macdonald of AMAX.

FLUORIDE ACCUMULATION ON FORAGE

The transfer of airborn fluoride to forage has been studied under conditions of experimental fumigation and a formula developed to estimate total accumulation. the formula from the NAS publication,"Fluoride 1971" is as follows:

$$\Delta F = K C T$$

ΔF = The fluoride accumulation in parts per million (p.p.m.)

K = The accumulation constant for the type of forage and was assumed as 2.4 for alfalfa and 1.4 for orchard grass.

C = Mean atmospheric fluoride in $\mu gF/m^3$.

T = Time in days of the exposure of the forage This was assumed to be 30 days.

The accumulation of airborn fluoride on forage is greater in fall, winter and early spring because forage grows more slowly and time of accumulation is longer. This factor is partly counter balanced

by greater rainfall during that period. Most forage consumed by livestock grows from April through September so winter fluoride accumulations are further reduced in significance.

Field experience has indicated that the formula F = K C T will overestimate the accumulation of fluoride (Adams Report). The Cramer Report of 1974 indicated that during the growing season from April through September the average gaseus concentration at ground level would be 0.31 g/m^3. Total gaseus and particulate fluoride in May and December were projected at 0.63 and 1.25 g/m^3 respectively.

Using the above formula and data the maximum fluoride would be as follows:

Season	Maximum Conc. of F in Air	Alfalfa in p.p.m.	Orchard Grass in p.p.m.
May	0.63	45	26
December	1.25	90	53

The results are maximum effects, average yearly intake would be less. Most forage consumed would grow during the spring and summer season, characterized by May, most forage would be grass and not alfalfa. The formula tends to overestimate forage accumulation. The calculations for air fluoride were made at or beyond the boundaries of the plant property. Isopleths in the Cramer Report show a marked reduction in monthly average ground level total fluoride with increasing distance from plant property. Because of these factors the mean yearly forage fluoride would surely be well below the 40p.p.m. suggested as the tolerance level for cattle by the NAS "Effects of Fluoride" publication providing the conditions were as described in the Cramer 1974 Report.

The location of farms examined by Dr. Harris would suggest they are well outside the isopleths of maximum concentration of airborn fluoride around the aluminum plant.

EFFECT OF FLUORIDE ON DOMESTICATED HERBIVORES

The factors affecting fluoride injury in herbivores include the age and species of animal, the concentration and chemical form of fluoride ingested, dose and duration of ingestion and the concentration of calcium and other fluoride-antagonizing substances in the feed. The amount of fluoride ingested depends on the concentrations of fluoride in or on the forage, concentrate, feed and water and the quantity of each that is consumed. Inhalation or skin contamination provides a negligible intake of fluoride and has been disregarded in this evaluation

The largest potential source of nonindustrial fluoride that might be ingested by livestock in the Warrenton area is the mineral portion of the feed. This may be fed free choice, mixed with salt or mixed with the concentrate portion of the ration. There is no sure way to estimate how much fluoride might be ingested by animals from this source in advance because of great variation in fluoride content and quantity and quality of mineral supplied by different feeds.

Herbivores develop some fluoride dental changes at intakes of fluoride well below the maximum safe level. In cattle examined in the Warrenton area Dr. Harris found some with slight to very slight effects due to fluoride. This fluoride presumably came from the mineral feeds purchased. Similar slight dental effects might occur from plant effluents but they would have only a cosmetic effect.

The safe level of fluoride for cattle in the total dry weight of a ration was listed as 40 to 50 p.p.m. by the NAS "Effects of Fluoride" publication. If a concentrate containing little fluoride is fed, the fluoride in the total ration will be less than that in the roughage, thereby reducing the possibility of injury. Beef cattle can tolerate a slightly higher fluoride concentration in their feed because their total intake is somewhat less.

Horses have a similar tolerance to fluoride as cattle, and sheep are somewhat more tolerant. Swine are more tolerant than any herbivore and their intake of roughage is usually low. Therefore the other farm animals in the Warrenton area should be safe providing cattle

are not injured. Dogs and cats would receive little or no fluoride from the plant because they consume little forage.

Among wild animals deer and elk are probably no more susceptible than cattle. Birds and rodents are all highly resistant and not affected by doses that severely cripple cattle.

OTHER SOURCES OF FLUORIDE FOR ANIMALS IN THE AREA

OSU Report 335 found that in 1968 to 1970 forage in the Warrenton area had 0.8 to 3.2 p.p.m. of fluoride. This low level would not be of significance. Intakes of fluoride in water and mineral concentrate feeds to livestock are not known. A survey of animal feeds for fluoride content should be made in the area prior to operation of the factory and repeatedly during the operation. This will disclose all sources of fluoride and warn of dangerous levels in time to prevent injury to animals. A dental survey of a sample of cattle in each herd should be performed to establish the average dental score prior to onset of plant operations. Some observationswere already reported by Dr. Harris but this data should be amplified just prior to the operation of the plant.

SURVEILLANCE NEEDED IN THE AREA

Suggestions for future monitoring procedure are as follows:

1. A survey should be made of the animals and forage prior to the onset of operations and at intervals afterward to determine the following:

    a. Dental scores on representative samples of cattle in all beef and dairy cattle herds within four miles of the aluminum plant.
    b. Average urine fluoride of a representative number of cattle in all such herds.
    c. Bone fluoride from a few cattle culled and slaughtered from each herd.
    d. Forage fluoride from both pasture and hay or silage at intervals throughout the year at a few pasture or forage producing areas within four miles of the aluminum plant.
    e. Incidence of other diseases and nutritional problems in cattle that might be confused with industrial fluoride effects, such as lameness, mineral deficiencies and metabolic

diseases.

f. Fluoride in purchased feeds for each cattle farm.

2. An independent or state supported agency such as Oregon State University or the Oregon Air Pollution Commission should exercise a yearly surveillance function with published reports. This will give the livestock producers an unbiased source of information on the quality of their forage as affected by the aluminum plant.

CONCLUSIONS

The available data and calculations from the 1974 Cramer Report indicate that average fluoride in the Warrenton area will be within the level of tolerance for domesticated and wild animals during the operation of the proposed aluminum reduction plant. There should be no significant effect on livestock production.

July 25, 1974

Mr. Ian Macdonald
AMAX Pacific Aluminum Corporation
Suite 250
1600 S.W. Fourth
Portland, Oregon

Dear Mr. Macdonald:

Reference is made to your letters and telephone conversations requesting evaluation of the H.E. Cramer Company, Mc. reports dated November 8, 1973, and July 12, 1974, and recommendations regarding AMAX Pacific Aluminum Corporation proposed primary aluminum reduction plant at Warrenton, Oregon, relative to potentially inducing fluoride toxicosis in animals (livestock and wildlife) in the area adjacent to the proposed industrial operation.

After reviewing your two forwarded reports some general comments can be made regarding their contents as relating to fluoride toxicosis in animals that I was requested to evaluate and respond to.

I. The Cramer reports provide calculated ambient air data and factors that can and may influence air quality in the Warrenton, Oregon area.

II. The conversion of calculated ambient air data to meaningful and reliable predictive fluoride effects on livestock and wildlife is very difficult and hazardous.

III. Based on our studies (controlled and epidemiological) I am unable to extrapolate the reports and calculated air fluoride levels to safe and reliable animal protection.

A. There are too many unknown and conversion factors.

B. Even the conversion of field vegetative fluoride levels has restricted and limited value in predicting the effect and degree of fluoride toxicosis in animals.

IV. The effects of fluorides on animals can only be determined by an examination of the animals by a qualified and competent individual.

V. It is impossible to reliably predict and evaluate fluoride effects on animals in the Warrenton, Oregon area from the Cramer reports.

A. There are too many unknown and variable factors to predict or estimate the effects of fluorides on animals based on the information in the reports.

VI. I commend you for your pre-construction and pre-operative endeavors and activities.

A. Preventive measures are better and cheaper than curative procedures.

B. It is very important and advisable to obtain pre-operative information and background data, so that, future conditions and effects can be properly determined and evaluated.

As requested the following comments and recommendations are given for your consideration.

I. Settlement and compensation for fluoride toxicity in animals should be equitable, insofar as possible, for all concerned.

II. Settlement and compensation should be based on present and past adverse effects. Future conditions and effects cannot be accurately predicted.

III. There should be a continuous program to properly evaluate the problem on an individual herd and animal basis.

IV. It is very important to consider unit productive value of the animals.

A. Milk
B. Meat
C. Offspring
D. Growth--sale value
E. Individual animal value

V. Diagnosis of fluoride toxicity

A. Pre-examination consideration.

1. Use competent personnel capable of properly evaluating the problem.

2. Have available all previous pertinent information and records relative to the animals involved, the operation and possible sources of fluoride.

a. Previous examination records, results or evaluation.
b. Results of vegetation chemical analyses.
c. Management practices.

d. Health records.
e. Feeding practices.
f. Production records.
g. Sales records.

B. Examination of animals and livestock operation.

1. Have sufficient competent help for handling animals, taking photographs, and collecting samples. Have adequate equipment for above procedures.

2. Clinical examination of each animal including teeth, bones, and general body condition.

3. Record clinical findings as well as breed, sex, lactation, reproductive status, and history of the case.

4. Identify animal either by ear tag or ear tattoo.

5. Photograph incisor teeth of animal for future reference and evaluation.

6. Collect urine samples for chemical analysis.

7. Perform bone biopsies if case warrants.

8. Perform necropsy on selected animals if case warrants.

9. Check vegetation types, crops grown, and how fed (pastured or harvested).

10. Check topographical relationship of farm to source and/or sources of suspected fluoride emission.

11. Have animals appraised by two experienced and qualified individuals to determine individual animal values.

VI. Determination of extent of fluoride induced damage

A. Examine other herds in adjacent areas if possible.

B. Compile all findings, records, data, and information pertinent to the herd.

C. Compile all findings pertinent to each individual.

D. Determine degree of dental fluorosis, amount of fluoride storage in the bone, and fluoride excretion in the urine. Evaluate these findings with consideration of the factors that influence them.

VII. What is the best way to identify and mark livestock?

A. Ear tag animals

1. For easy and short-term identification.

B. Tattoo ear or brand animal for permanent identification.

VIII. What is a fair and practical method to determine fluoride damage to lifestock?

A. All available findings, data and information should be studied and considered before making a diagnosis and evaluation of fluoride toxicity. Each individual animal must be evaluated on its own expression of fluoride response regardless of monitoring and sampling data relating to the source of fluoride and analyses of fluoride values in the diet. One may not detect some pertinent things in a herd that are important if one does not also observe other herds or animals in adjacent areas. Some manifestations thought to be fluoride toxicity may not be. It is advantageous to compare herd units with adjacent herds of the same breed or type and approximately similar exposure and management practices. Final evaluations should not be made until all possible circumstances associated with the findings are known.

B. Fluoride toxicity is a condition induced by intake of excessive fluorides and dependent upon a number of factors such as:

1. Amount of fluoride ingested.
2. Duration of ingestion.
3. Solubility of fluoride ingested.
4. Variations in fluoride ingestion levels.
5. Age at time of ingestion.
6. Qualitative and quantitative nutritional adequacy of ration.
7. Species.
8. Stress factors.
9. Individual biological response.

C. In the final analysis, each animal must be evaluated on its individual response.

IX. What is a fair and practical procedure to use in evaluating fluoride damage to livestock?

A. Only someone properly trained and knowledgeable regarding fluoride toxicity in animals can adequately and accurately diagnose and evaluate the effects. Such an individual should have access to all the information and records relative to the affected herds. The diagnostician should make detailed clinical examinations of all animals suspected of being adversely affected and also examine some animals in adjacent areas. The individual doing the diagnosing and evaluating must be properly trained, knowledgeable, experienced, and a person of unequivocal integrity.

X. It would be advisable to utilize a local competent veterinarian in the area to work with the livestockmen and closely observe and know the health status of their animals.

XI. Extensive detailed information relative to fluoride toxicosis in animals has been developed and is known.

A. The local veterinarian should visit institutions where this information has been developed.

B. The local veterinarian should be a competent diagnostician and become familiar with all the lesions and responses associated with fluoride toxicosis and not just learn the dental fluoride classification procedure.

XII. It would be unwise to duplicate past or on-going fluoride research that is being conducted regarding the effects of fluorides on animals.

XIII. It would be advisable to utilize personnel from Oregon State University where necessary and feasible.

XIV. It is very important and significant that good public relations be established and maintained.

A. The livestock owners will respond and cooperate better if they are kept informed and are exposed to the fundamental aspects of fluoride toxicosis in animals and other diseases that it may be confused with.

B. It is better to inform and prevent problems than to non-inform and then have to cure preventable conditions.

C. To be of most value and assistance to you one should visit and observe the conditions in the Warrenton, Oregon, area.

XV. Experience and studies conducted thus far have shown that fluoride induced problems can be intelligently dealt with and that agriculture and industrialization can progress with mutual benefits.

A. The above comments and recommendations are based on my training in veterinary medicine, pathology, toxicology, and our controlled fluoride studies in animals and clinical epidemiological studies and surveys of fluoride toxicosis in animals.

If you have any questions regarding this report and the previously forwarded reprints do not hesitate to let me know.

Sincerely yours,

James L. Shupe

James L. Shupe, DVM

VETERINARY CONSULTANT

William F. Harris, B.S., D.V.M.
1102 EAST MAIN - PUYALLUP, WASHINGTON 98371
TELEPHONE (206) 845-8866

July 29, 1974

Ian Macdonald
Amax Pacific Aluminum Corporation
1600 S.W. 4th Avenue Suite 250
Portland, Oregon 97201

Dear Mr. Macdonald:

Responding to your telephone call of July 18, 1974, I have reviewed the H.E. Cramer and J.F. Bowers, Jr. document of July 12, 1974, entitled "Calculated Impact On Ambient Air Quality of Fluoride, SO_2 And Particulate Emissions From a Proposed Amax Aluminum Plant at Warrenton, Oregon." The delay in my response was due to a trip to Canada. The Cramer Report presents a most impressive and interesting series of calculations and conclusions. The formulae used to develop these conclusions as well as the conclusions themselves are beyond the scope of any expertise I might have, so that I am not qualified to comment on them. Further, the conclusions, which seem to show a limited exposure area near the plant site during a small part of the year, that approaches the states air quality standards, do not provide me with a basis for commenting on possible effects on animals consuming vegetation exposed at those sites. The many variables, such as amount and distribution of precipitation, wind velocity, intensity and direction as well as thermal influences, do not lend themselves to reliable predictions of the amounts of gasses and fine particulates that may be expected to accumulate on the wide variety of vegetation to be grown in the plant site area.

A very few limited attempts have been made to develop vegetation exposure levels from air quality data. Those who have made such attempts are quick to assert that such efforts produce unreliable information even when applied to the plant site from which the data were accumulated and are even less reliable when it is attempted to apply them to a different set of physical conditions.

Since the isopleths of ground level gassious and particulate fluoride concentrations are projected to be both minimal in quantity and limited in distribution and since other Aluminum reduction plants in operation at other locations under different physical conditions are known to carry out their functions with only minimal effects on neighboring livestock, it can be postulated that Amax Aluminum Corporation should probably experiance little or no economically adverse animal effects due to its Warrenton, Oregon plants operation.

Sincerely yours,

William F Harris.

William F. Harris D.V.M.

WFH/fh

Report of the Potential Impact of the Proposed AMAX Pacific Aluminum Reduction Plant on Livestock in the Area

J.W. Suttie

8/1/74

I. Potential Problem

In a letter of June 11, 1974, from Dr. W.F. Harris to Mr. I. MacDonald it is estimated that there is in a 10 mile radius from the proposed plant site, a livestock population of about 1,000 head of cattle, 20 sheep, and probably less than 100 horses. The area is therefore not densely populated with livestock, but there are sufficient animals present to constitute a potential problem. The recent revision of the NRC bulletin dealing fluoride effects in domestic animals (NAS-NRC [National Academy of Sciences-National Research Council] 1974 Effects of Fluorides in Animals, National Academy of Sciences, Washington, D.C. 70 p.) has reiterated the generally accepted finding that growing beef or dairy heifers are the most sensitive of the domestic animal species, and the assumption can be made that protection of this species will result in protection of other species also.

Table 4, p. 55 of the NRC report indicates that (appendex A) the tolerance for beef or dairy heifers is 40 ppm of a soluble fluoride in the diet. The table also indicates that the ingestion of in excess of 30 ppm F in the diet would result in some tissue pathology (mainly dental) but that there is no evidence to indicate that these deviations from normal would have any effect on the normal performance of the animals.

It is therefore clear that there are animals in the area and that if excessive amounts of the fluorides are accumulated by forage crops in the area, there is a potential for damage to cattle.

II. Acceptable Levels of Fluorides in Forage Crops

It should be recognized that the tolerances indicated in the previous section refer to total fluoride in the dry matter of the diet and that in the field, the fluoride in contaminated will be diluted by intake of low fluoride concentrates. It has been generally recognized that forage fluoride concentrations should be held to such a level that there will not be an appreciable incidence of severe dental fluorosis developed in animals grazing in the area. Dental fluorosis can develop from short periods of high exposure as well as a continued lower exposure, and this should be taken into consideration in a determination of what levels are safe. I have in the past proposed that cattle will be adequately protected if:

A. The yearly average (monthly samples) fluoride content of the forage does not exceed 40 ppm (dry wt.) and

B. The fluoride content of the forage does not exceed 60 ppm F for more than two consecutive months, or does not exceed 80 ppm F for more than one month

A standard similar to this has been adopted by a number of states. The rational for this type of a standard and the basis for those particular values can be found in J. Air Poll. Cont. Assoc. 19, 239 (1969) (appendex B) and additional evidence to support the need for short term limits rather than only a yearly average can be found in Am. J. Vet. Res. 32, 217 (1971) (appendex C) and J. Dairy Sci. 55, 790 (1972) (appendex D).

III. Potential Forage Fluoride Concentrations in the Area Around the AMAX Plant.

The discussions in the two previous sections indicate that there is sufficient experimental and practical experience available to predict what the effects of the ingestion of forage of a given fluoride concentration by young cattle will be. An estimate of the fluoride emissions from the plant has been provided by the H.E. Cramer Company report TR-74-408-01, July 12, 1974, but the data which will allow a prediction of the forage fluoride concentration from these emission data are not extensive.

What information is available has been recently compiled and reviewed in a NAS publication (NAS-NRC [National Academy of Sciences-Nationa Research Council] 1971 Biologic Effects of Atmospheric Pollutants-Fluorides. National Academyof Sciences Washington, D.C. 295 p.). Although some of the data discussed in this review are available in the original literature, p. 120-129 of this review contain the only critical discussion of the relationship between ambient HF concentrations and rate of fluoride accumulation by plants.

Most of the data available have been obtained using concentrations of fluoride in excess of 0.5 $\mu g/m^3$ and in many cases, the fumigation period was rather short. Most of the data available were obtained using alfalfa, but limited data from other plant species are available.

A number of equations relating the concentration of fluoride accumulated in alfalfa to the gasseous fluoride content of the atmosphere have been published. The simplest expression is to treat the plant as a passive accumulation of fluoride and arrive at

$$F = KCT$$

where F = fluoride accumulated by the plant (ppm)

K = accumulation coefficient (2.4 for alfalfa)

C = concentration ($\mu g/m^3$)

T = time (days)

other workers have followed the increase in alfalfa fluoride concentration with time, and also the loss of fluoride when the exposure is removed, and obtained the expression

$$F = 4.22\ C^{0.82}\ T^{0.7}\ e^{-0.032D}$$

when the additional term, D, is the postexposure period in days.

If a two month exposure period is assumed, the first equation predicts considerably higher forage fluoride concentrations and will be used in the subsequent discussions. The Cramer report calculates the average ground level gasseous fluoride concentration for each month, and these values can be used to predict forage fluoride values in the area.

These calculations have been made and are presented in Figure 1 for the spring of the year based on the June fluoride concentration and in Figure 2 for the fall of the year based on the September concentrations. These assumptions were made:

1. The equation $F = KCT$ ($K = 2.4$) is valid
2. The exposure period before a plant is eaten by an animal or harvested is 60 days.

These calculated concentrations would be in addition to the normal fluoride content in the region. This can be determined before the plant is in operation but in a non-industrial area, should only be a few ppm (see Agr. and Food Chem. 17, 1350, 1969) (appendex E). In this particular area, salt water spray from the ocean may increase this somewhat.

The values in Figure 1 and 2 were calculated from the estimated gasseous fluoride concentrations in the vicinity of the plant. As indicated in the Cramer report, these will also be an appreciable emission of particulate fluorides. The only data I have been able to find which relates to fluoride accumulation in forage crops following fumigation with particulate fluoride (Cont. Boyce Thompson Inst. 23, 1, 1965) (appendex F) are a couple of observations on alfalfa fumigation with cryolite dust. These were 46 day exposures at 2.4 or 4.5 $\mu g/m^3$ of fluoride. If the passive accumulation model is assumed, the two trials gave calculated K values (accumulation coefficeints) of 1.6 and 1.8. These ambient concentrations are roughly an order of magnitude higher than those expected in the area. These plants were not exposed to the weather, which would cause a substantial, but unknown loss of fluoride from the plant. However it is possible to use these data to give some idea of the increase in fluoride expected by the particulate fluoride. Figure 3 contains such data based on the estimated ground level particulate fluoride

concentrations in May. The following assumptions were made:

1. Fluoride uptake follows the equation $F = KCT$ where K is 1.7.
2. The exposure period before the plant is eaten or harvested in 60 days.
3. 50% of the accumulated fluoride is lost by subsequent weathering of the plant.

Figures 4 and 5 contain an estimate of the total fluoride in the vegetation during the spring and fall. These figures were prepared by assuming that the distribution of particulate during the growing season is rather similar to that seen in May, and adding the concentration predicted in Figures 3 to that of Figures 1 and 2. It was also assumed that the base line fluoride concentrations in this area might be as high as 5 ppm, and this was added to all values.

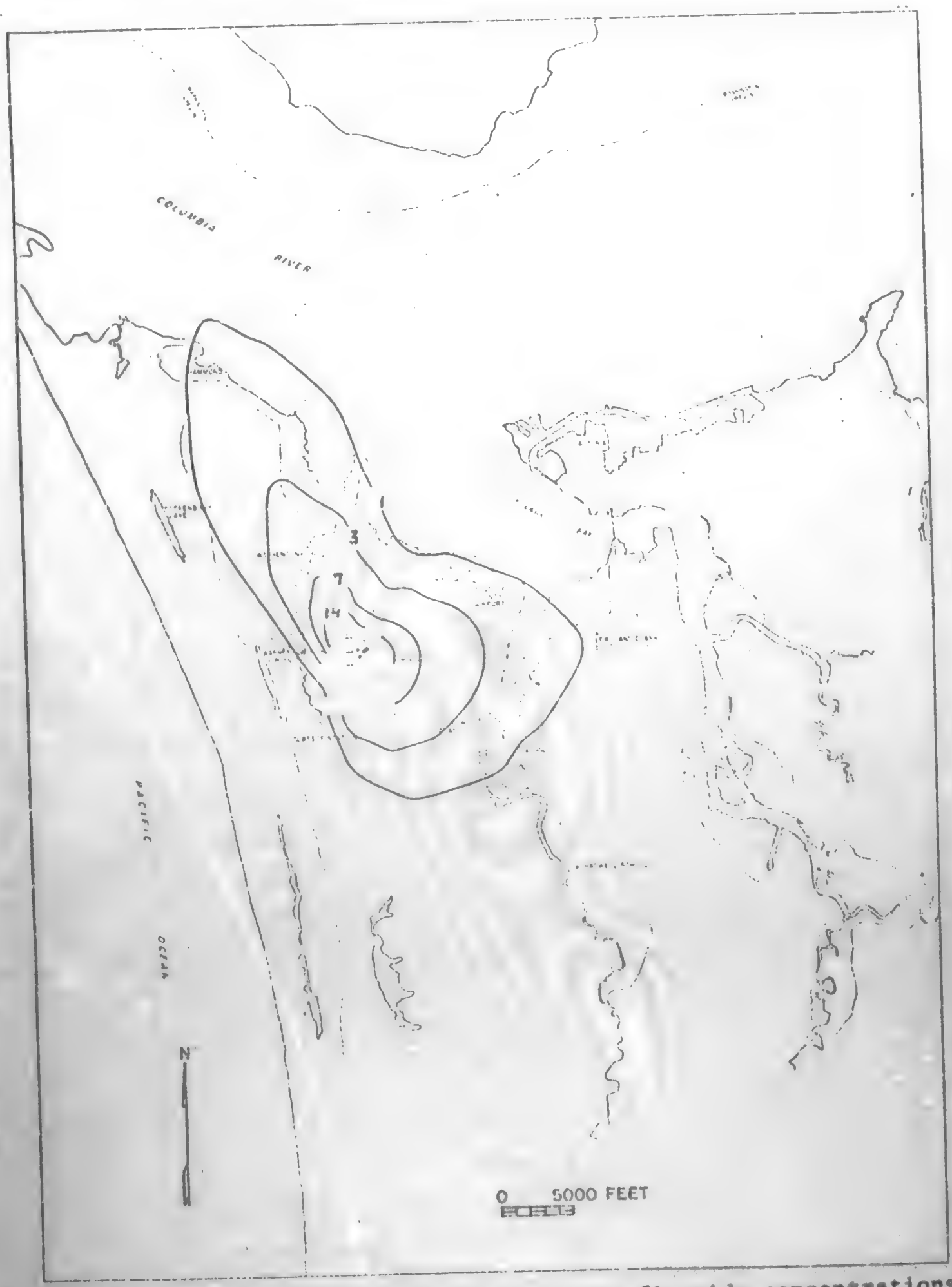

Figure 1. Calculated isopleths of forage fluoride concentrations due to gasseous fluorides for the spring.

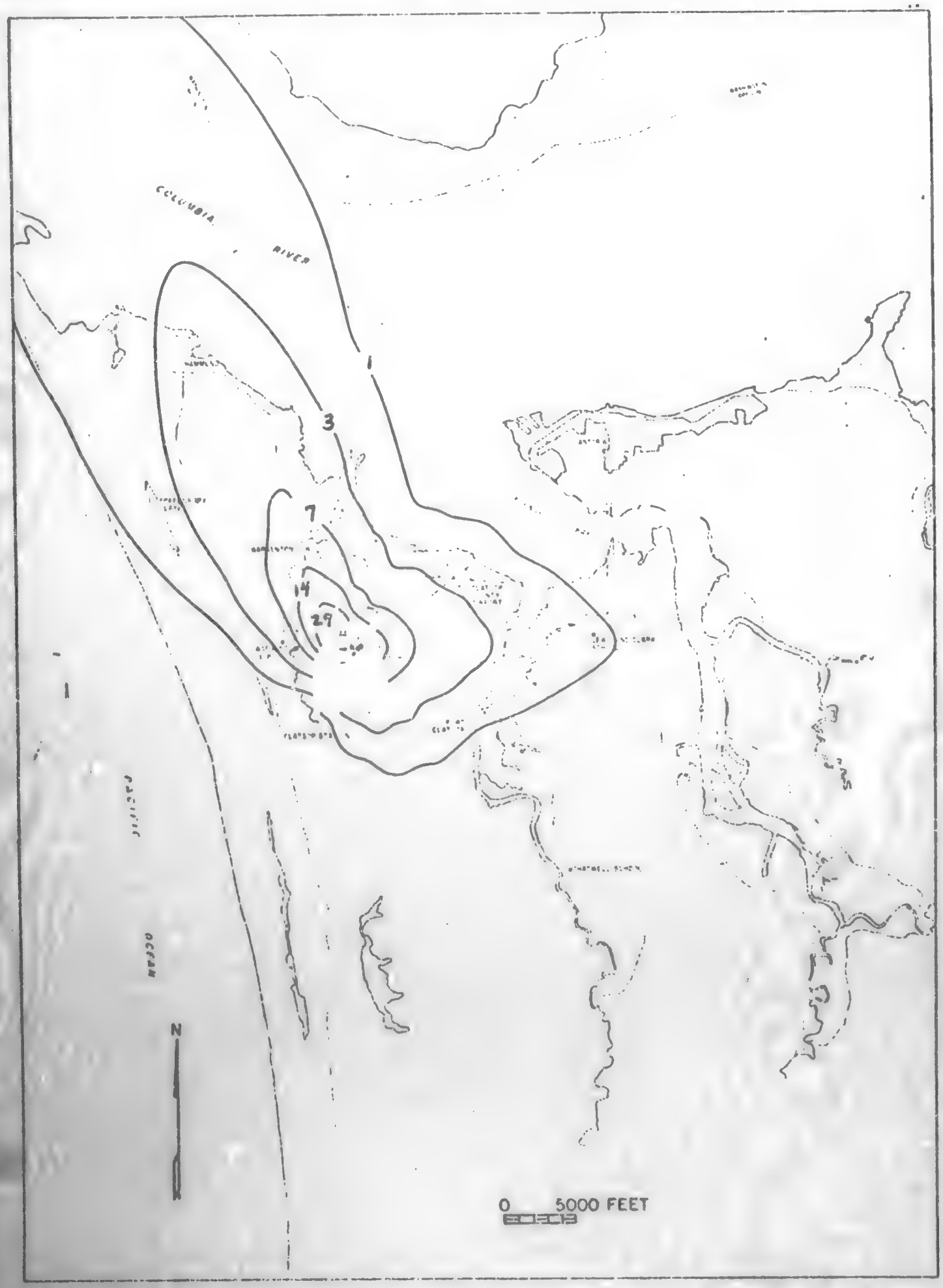

Figure 2. Calculated isopleths of forage fluoride concentrations due to gasseous fluorides for the fall.

Figure 3. Calculated isopleths of forage fluoride concentrations due to emission of particulate fluoride.

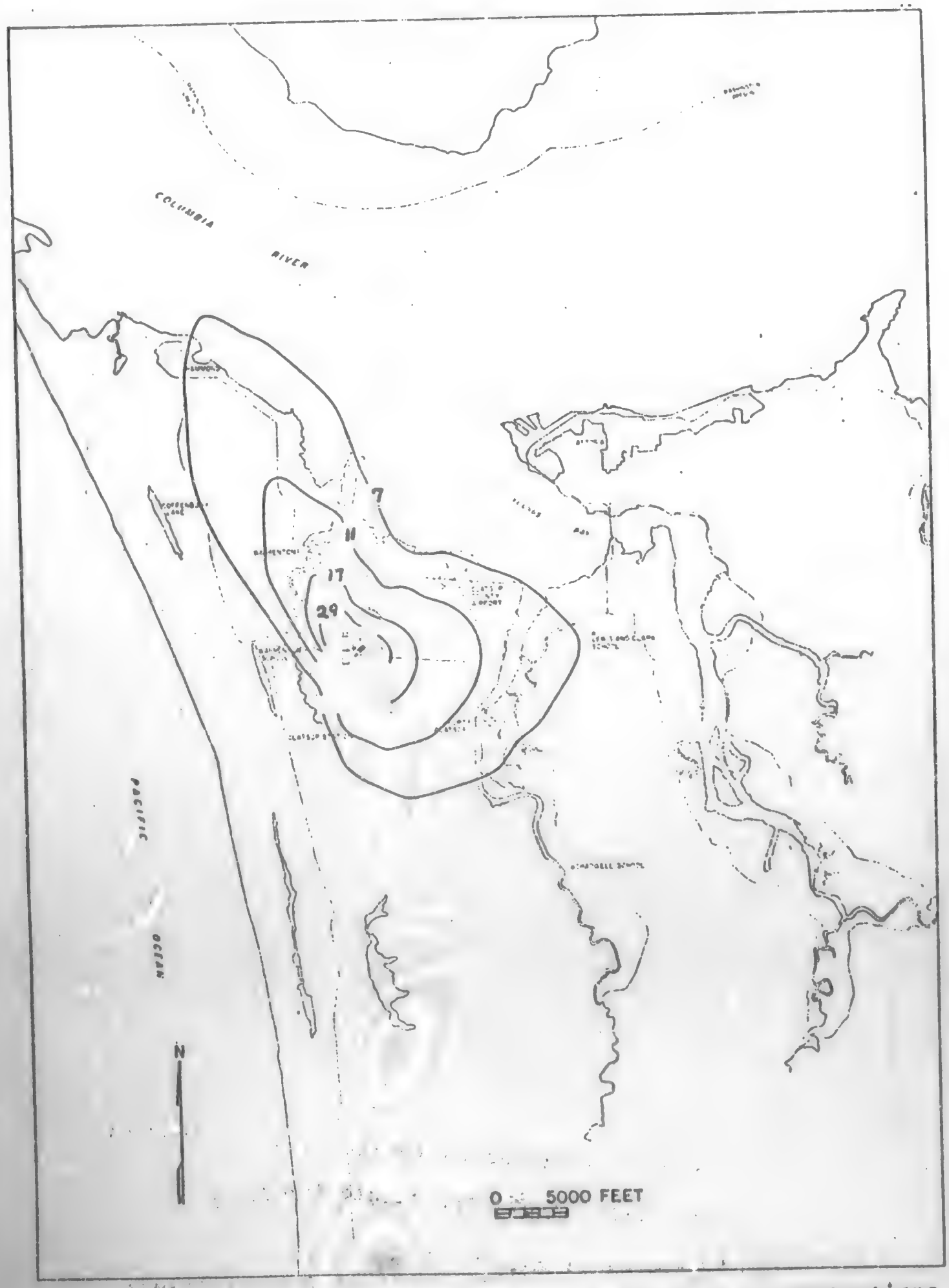

Figure 4. Calculated isopleths of total fluoride concentrations in forage for the spring.

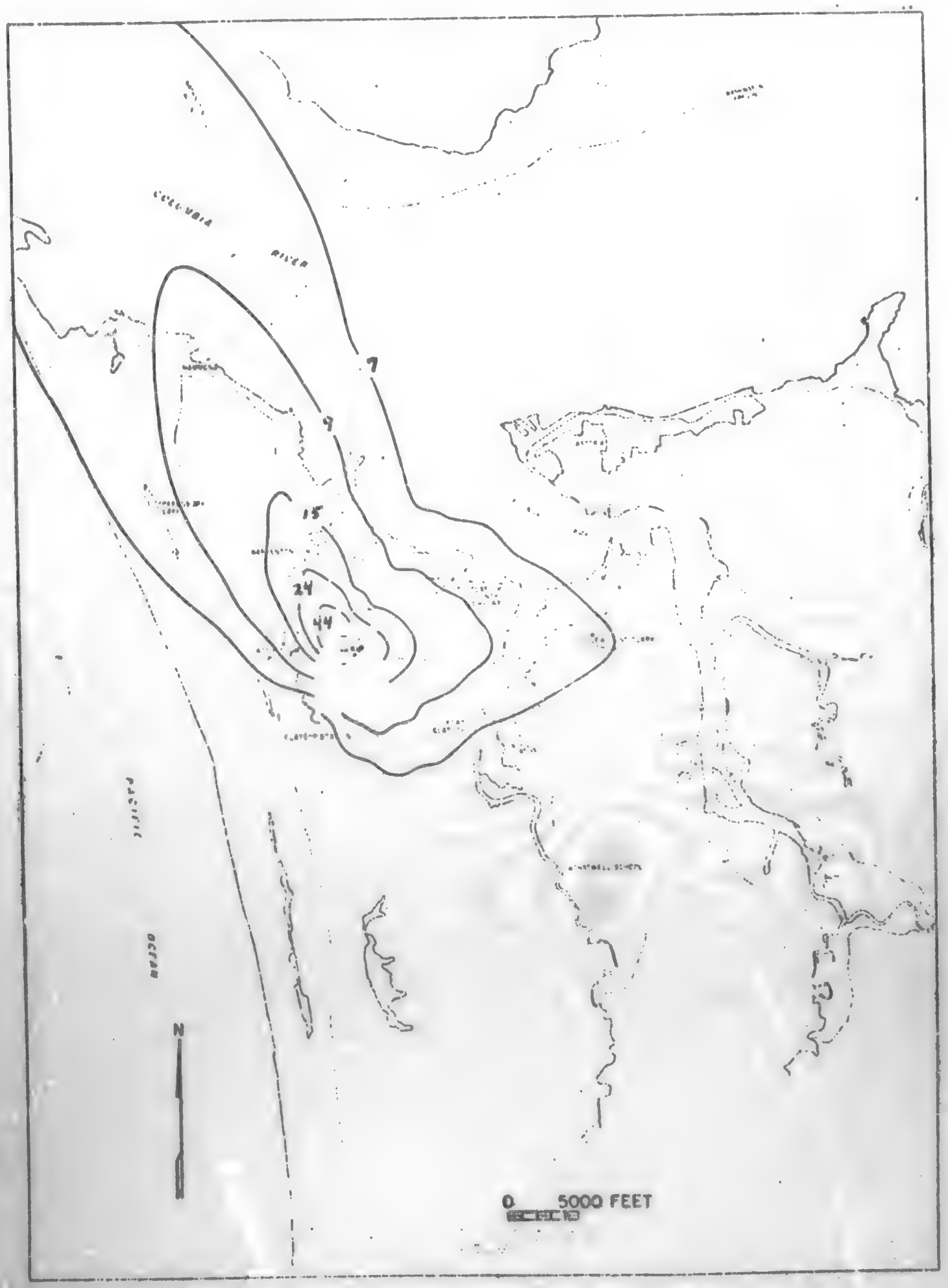

Figure 5. Calculated isopleths of total fluoride concentration in forage for the fall.

IV. Discussion

The estimated forage fluoride values shown in Figure 4 and 5 are based on a large number of assumptions and should not be considered to have great predictive value. From a practical standpoint however, most of the assumptions used would tend to maximize the predicted value.

1. The calculations are based on alfalfa as the forage while in the proposed plant site area there may well be a number of forage grasses. There is reasonably firm data to indicate that the uptake of fluoride by grasses is not as extensive as by alfalfa.

2. Numerous equations for calculating fluoride uptake have been proposed, and the one that gives the highest predicted forage fluoride has been used.

3. An exposure period of 60 days is assumed, while in many cases grazing animals will be eating forage exposed for only a few weeks.

4. In general, forage fluoride concentrations tend to increase in the fall when vegetative growth slows. The equation used does not include rate of growth as a variable, and might tend to underestimate the accumulation in the fall.

One factor not considered is the potential for contamination of forage by dust from the plant other than that which is calculated as particulate emissions. It is impossible to prevent some dust from the pot room floor from blowing out of the building and particularly when a dry scrubbing system is used, this is mainly high fluoride

alumina. This dust will contribute to forage fluoride values near the plant, but the amount of fluoride is impossible to predict. In any event, it shoul be limited to a few hundred yards from the plant site.

V. Conclusions

1. There will be a detectable increase in forage fluoride in the vicinity of the plant, the increase will be most extensive to the north and east of the plant site.

2. The forage concentrations will be higher in the fall than in the spring.

3. Forage fluoride concentrations should exceed 40 ppm only during the fall of the year, and then only within a few hundred yards of the plant boundary.

4. The yearly average forage fluoride concentration should not exceed 40 ppm at any point in this area.

5. The performance (meat or milk production) of cattle raised in this area should not be effected by the levels of forage fluoride which will be present.

6. Fluoride induced mottling of teeth will probably be seen in cattle raised as far away as three or four miles from the plant site. This mottling will not influence the wearing quality of the tooth.

7. Severe dental fluorosis should not be a significant problem in cattle raised in this area. It is, however, possible that if cattle were confined to a small area (within 0.5 miles) to the north and east of the plant that an occasional incisor would be influenced to the point that its wearing quality would be decreased.

Appendices A - F

A

TABLE 4 Dietary Fluoride Tolerances for Domestic Animals[a]

Animal	Performance[b] (ppm F)	Pathology[c] (ppm F)
Beef or dairy heifers	40	30
Mature beef or dairy cattle[d]	50	40
Finishing cattle	100	NA[e]
Feeder lambs	150	ID[f]
Breeding ewes	60	ID
Horses	60	40
Finishing pigs	150	NA
Breeding sows	150	100
Growing or broiler chickens	300	ID
Laying or breeding hens	400	ID
Turkeys[g]	400	ID
Growing dogs	100	50

[a]The values are presented as ppm F in dietary dry matter and assume the ingestion of a soluble fluoride, such as NaF. When the fluoride in the ration is present as some form of defluorinated rock phosphate, these tolerances may be increased by 50 percent.
[b]Levels that, on the basis of published data for that species, could be fed without clinical interference with normal performance.
[c]At this level of fluoride intake pathologic changes occur. The effects of these changes on performance are not fully known.
[d]Cattle first exposed to this level at 3 yr of age or older.
[e]NA = not applicable.
[f]ID = insufficient data.
[g]This level has been shown to be safe for growing turkey females. Very limited data suggest that the tolerance for growing male turkeys may be lower. (See p. 53.)

B

J. W. Suttie
University of Wisconsin

Air Quality Standards For the Protection Of Farm Animals from Fluorides

The ingestion of forages contaminated with inorganic fluorides from industrial sources constitutes an air pollution problem for domestic livestock. In cattle, which have been studied most extensively, the syndrome is characterized by dental and skeletal lesions, lameness, chemical evidence of increased fluoride ingestion, and in severe cases by effects on appetite and milk production. The only practical basis for a standard appears to be one based on forage fluoride concentrations. It is concluded that a standard should protect cattle from loss of milk production and from severe dental fluorosis, but need not be set so low that the animals will be protected against any discernible deviations from normal which do not influence their general health, productive ability, or the soundness and wearing quality of their dentition. As there may be wide seasonal variations in forage fluoride concentrations, the basic standard should be expressed as a yearly average of the forage fluoride concentration. However, as the developing teeth may be adversely influenced by short periods of high exposure, the standard should contain a provision which limits both the extent and duration of time that high concentrations may be tolerated even though they are balanced by lower values at other months. Based on these criteria, a tentative standard which limits forage fluoride to an average of 40 ppm, and limits the time that forage concentrations may exceed 60 or 80 ppm F is proposed.

The emission of various forms of inorganic fluoride by certain major industries, chiefly those concerned with the production of aluminum, ceramic, or phosphate products, has resulted in an air pollution problem for livestock in the immediate area. Available evidence would indicate that there is no appreciable intake of fluoride via direct inhalation by the livestock in the area, but that the problem is rather one caused by the consumption of pasture or cured forage contaminated by this effluent. As swine and poultry are fed cereal grains, which are low in fluoride even when grown in areas where there are elevated concentrations of atmospheric fluoride, the practical problem is one of protecting those species of livestock which consume large amounts of forage. Of the affected species, chiefly cattle, sheep, and to some extent horses, cattle have not only been studied the most extensively, but are generally assumed to be the most sensitive to the ingestion of fluoride. This paper will therefore deal specifically with the cattle problem, on the assumption that the protection of this species will afford adequate protection for other domestic livestock.

Dr. Suttie is Associate Professor of Biochemistry in the University of Wisconsin's College of Agriculture, Madison, Wisconsin 53706.

Symptoms of the Toxicity

Present knowledge of the effects of fluorides on cattle has been gained from observations of field cases of the toxicity, and from a number of carefully controlled experimental studies. Adequate reviews of these general effects are readily available,[1-4] and the general effects of the toxicity can be briefly reviewed as follows.

Dental Lesions. The most obvious signs of the toxicity are the abnormalities in the permanent incisor teeth which are caused by the ingestion of fluoride during the period when they are developing (roughly 6 - 30 months of age).[5] These effects range from a mild mottling to severe enamel hypoplasia and a greatly increased rate of wear of both incisors and molars. A standard system which has been developed to score these fluoride induced effects on the incisors is summarized in Table I.

Table I. Interpretation of tooth scores.

Score No.	Interpretation
1	A normal tooth or one with a non-fluoride caused lesion
2	Slight fluoride effects, usually mottling in a horizontal pattern, seen best with transmitted light. Surface of the tooth usually has a good luster
3	General mottling to the extent that the surface of the tooth has an overall chalky appearance
4 and 5	General mottling accompanied by hypoplasia of the enamel. The degree of hypoplasia and degree of wear determine a 4 or 5 score. Stain is considered a variable expression of the defective enamel and not a primary effect of fluoride ingestion, with a good light to see the primary effects, it is almost completely ignored

This classification is a summary of more complicated schemes that have been described.[3]

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Osseous Lesions. The ingestion of toxic amounts of fluoride for extended periods can result in palpable exostases of the long bones caused by a severe periosteal hyperostosis. The affected bones lose their normal, hard smooth luster, and when cleaned appear rough, porous and chalky white. A second skeletal lesion sometimes observed is a calcification of the joint tendons at the point where they attach to the leg bones.

Lameness. A lameness or generalized stiffness is an intermittent sign of the toxicity and difficult to distinguish from lameness caused by a multitude of other agents. The clinical basis for the lameness is not clear and is probably multicausal, although one specific type observed in some areas[6] appears to be associated with the fracture of the third phalanx.

Chemical Evidence. The fluoride content of skeletal tissues gradually increases with age as bones accumulate fluoride at a rate which is to a large extent dependent on the concentration in the ration. Analyses of skeletal tissues, which can be obtained by rib or vertebral biopsy, are thus one of the most definitive criterion of the toxicity. Much of the ingested fluoride is excreted in the urine, and analysis of urine may be used to obtain a rough indication of dietary intake. The fluoride content of blood and soft tissues increases only slightly when increased fluoride is ingested, and the small magnitude of this increase makes the analysis difficult, and lessens their value as diagnostic tools.

Systemic Effects. Appetite impairment, eventually resulting in decreased weight gain, cachexia, and diminished milk yield is an important factor in the development of the advanced stages of fluoride toxicity, but because it is common to so many deficiency and toxic states, it is not in itself a good diagnostic criterion. There is no evidence to indicate that fluoride ingestion can directly influence the physiologic process of milk secretion, and any effect noted on productive ability has been found to be secondary to other responses.

Nature of a Standard

Standards for the control of fluoride as a polluting agent in the atmosphere could presumably be set at any one of three levels; atmospheric fluoride concentration, forage fluoride levels, or the effects on the animals exposed.

The atmospheric fluoride concentration can be determined with equipment and methods available, however, continual monitoring of large areas over an extended period would be required. Even if ambient fluoride concentrations were known, variations in the chemical form of the fluoride emission, growth rate of the plants, rainfall, etc. would make it difficult to extrapolate these values to forage concentrations and little information on this difficult problem is currently available.

The effects of fluoride on cattle can be assessed and evaluated, and could presumably be used as a basis for standards. However, because of the long latent period before many of the symptoms develop, the damage might be done before the problem is recognized. The increases in fluoride content of the urine or plasma are an indication of exposure but are too subject to short term variation to be useful as a primary standard. Fluoride analysis of a vertebral biopsy would stress the accumulative nature of the toxicity but do not seem feasible as a routine survey method.

Forage fluoride levels can be determined, and although there are problems of collection and analysis, levels of forage fluoride are the only feasible standard and have already been used by some states.

Table II. The relationship between fluoride content of the ration and the development of various symptoms.

Symptom	Total Fluoride in Ration (ppm)			
	20-30	30-40	40-50	>50
Discernible dental mottling [a]	yes	yes	yes	yes
Enamel hypoplasia (Score #4) [a]	no	no	yes	yes
Moderate periosteal hyperostosis	no	no	yes	yes
Significant incidence of lameness	no	no	no	yes
Decreased milk production	no	no	no	yes
Skeletal F eq to 5000 ppm at 5 yr. [b]	no	no	no	yes
Urine F eq 25 ppm [c]	no	no	yes	yes

[a] Only if fluoride is present during formative period of the tooth.
[b] Metacarpal or metatarsal bone, dry fat free weight basis.
[c] Based on values taken after 2-3 years of exposure, SPG = 1.04.

Tolerance Levels and Definition of Damage

A number of studies have suggested that the tolerance level of a soluble fluoride for dairy cows is in the range of 30 - 50 ppm F in the total ration. In Table II the available data which deals with the amount of fluoride needed to produce specific symptoms when fed over an extended period are summarized. This table is based on a consideration and interpretation of data obtained in fairly comparable long term experiments conducted by Hobbs and Merriman,[7,8] Shupe, Greenwood, and associates (see ref. 9 for summary), Suttie and Phillips (see ref. 10 for other papers in the series) and by Newell and Schmidt.[11]

An inspection of Table II indicates that there are three general categories of effects which may result from the continual ingestion of fluoride.

Economic Effects. Carefully controlled experiments have shown that as much as 90 ppm F in the ration of cattle will not cause a statistically significant reduction in milk production. However, various investigators have indicated that after a three to four year exposure at levels in excess of 50 ppm, the lactation of an individual animal did seem affected. The lack of a generalized response below 50 ppm is consistent with the obervation that in excess of this level is needed to influence food intake. Animals receiving about 50 ppm F in the ration will also exhibit exostotoic lesions, be subject to lameness, have severely affected incisors of poor wearing quality, and will have high concentrations of fluoride in the urine and bones.

Severe Dental Fluorosis. Although there may be minor variations in the criteria which different investigators have used to score fluoride effects that a tooth score of 4 is the first category where enamel hypoplasia is seen, and where an increased rate of attrition of the tooth is expected. The level of fluoride needed to produce this effect has varied somewhat in different experiments, but using the criterion of the production of only one pair of number 4 teeth in an animal, it is usually seen when the fluoride concentration is somewhat in excess of 40 ppm.

Nondamaging Evidence of Fluoride Ingestion. At ingestion levels much below those required to produce a number 4 tooth, a trained observer can detect changes in the dentition and there will be chemical evidence of the increase in fluoride in the skeleton, urine, and soft tissues.

Considering these classes of fluoride effects it can be concluded that an air quality standard should be such that animals in the area suffer no economic damage through loss of protection. It should also insure that only a small percentage of the population would be

expected to develop any incisors which would be given a damage score of 4 or more. There seems to be no justification for setting a standard which will prevent discernible deviations from normal in the animal which do not influence its general health, productive ability, or the soundness of its dentition.

Considerations in Establishing a Standard

For a standard based on forage fluoride concentrations to be fair and equitable, it must take into consideration a number of factors. There is considerable fluctuation of vegetative fluoride content during a given year, and while a standard may be based in general on the average content of the forage over the year, it must make some provision to protect animals from short periods of ingestion of high concentrations which would cause severe dental fluorosis, but no other effects.

Sample Collection and Analytical Technique. The fluoride content of forage crops growing in areas subject to atmospheric fluoride pollution has been found by all investigators to be extremely variable. In general, the fluoride content will be less during the early part of the summer when the forage is growing rapidly and the rapid accumulation of dry matter causes a dilution of the fluoride concentration. Conversely, in the late fall or in an extended dry period, the dry unpalatable forage which is present will not be grazed as readily and the concentration will continue to rise. An example of these changes is shown in Table III. It is apparent that in a given location, the fluoride content of the forage may vary by 10 fold from early summer to midwinter.

It is clear from these variations that a standard based on a single sample is unrealistic and that it can only be based on some type of an average gained from multiple samplings.

It should also be recognized that the sample of pasture or hay obtained must be representative of that which is actually eaten by the animal. Presumably the responsible government agency can make available a sampling protocol which will insure that this is as uniform and meaningful as possible within a given area.

As fluoride is present in only microgram amounts, and the analysis of fluoride is subject to interference by a large number of substances, accurate analyses of forage samples have always been considered a problem. Again, this will be a problem for the regulatory agency to resolve, and with recent advances in methods,[13] this may be less of a problem than it was in the past.

Average Intakes and Peak Ingestion Levels. Available evidence indicates that with the exception of the effects on the incisors, the effects of fluorides on animals may be considered to be a function of the average concentration of the ration over an extended period even though there may be fluctuations from this average during this period. It has also been demonstrated that skeletal fluoride retention is a measure of total fluoride intake,[14] and that the development of a number of the other symptoms of the toxicity can be related to the skeletal fluoride concentration.[10,15] Table IV presents some data from a current experiment at Wisconsin which demonstrates that even though the concentration of fluoride in the ration may vary drastically at different times of the year, the skeletal fluoride retention is related to the average fluoride intake during the year. It would therefore appear that the general forage fluoride level comprising the standard could be set by applying what is known from experimental studies of the toxicity to an average of the forage values during the year.

The exception to this generality would be the effects on the developing teeth, which are related only to the concentrations being ingested during the approximately 6 month period that they are being formed. Table V presents data, again from current experiments at Wisconsin which shows that cattle exposed to a high peak level of fluoride ingestion for a short time will subsequently demonstrate severe dental fluorosis in those teeth being formed at that particular period, even though the average ingestion in that year was relatively low. Because of this effect some consideration must be given to limiting the period during which the consumption can rise above the desired average.

Application of Experimental Studies to Field Standards

Although there are some differences, there is general agreement as to the range of tolerance of cattle toward fluoride (as NaF) from the experimental studies which have been published, and the limited data which is available[7,16] indicates that the toxicity of fluoride from NaF is very similar to that of fluoride from industrial sources. In most of the experimental studies, the fluoride concentration has been expressed as ppm F in the total ration, while in most well managed dairy herds, the milking cattle are receiving at least 30% of their dry matter as a concentrate which will normally not

Table III. Monthly variation in pasture fluoride.

Month	P	CB	T
January	125	116	86
February			
March	154	118	160
April	53	80	105
May	118	58	67
June	25	33	34
July	84	134	128
August	84	63	138
September	84	72	114
October	102	72	114
November	220	174	150
December	292	150	187
Yearly Ave.	113	97	117

Analysis expressed as ppm F, dry matter basis, taken from Allcroft, et al.[16]

Table IV. Effect of variations in pattern of fluoride intake on skeletal fluoride retention.

F intake (mgF/Kg body wt)		Vertebral F (ppm ash wt)	
actual	yr. average	1 yr.	3 yr.
1.5 for 12 mo.	1.50	5420±200	9980±1850
1.5 for 6 mo. followed by 0 for 6 mo.	0.75	2510±230	5130±100
3.0 for 4 mo. followed by 0.75 for 8 mo.	1.50	5385±530	8690±680

Dairy heifers were started on the indicated intake at about 3 months of age. F analyses are means ±S.E. for from 4 to 7 animals per group.

Table V. Effect of short periods of high fluoride exposure on tooth scores.

Cow	Peak F intake	Peak [a] conc. ppm F	mo./yr at peak	Yearly [a] avg. ppm F	Tooth Score Incisor No. 1	2	3	4
A	Control				1	1	1	1
B	1.5 mg F/Kg	70	12	70	5	5	5	5
C	1.5 mg F/Kg	70	6[b]	35	2	4	2	5
D	2.5 mg F/Kg	115	3[c]	29	1	2	5	2

[a] Calculated on the estimated dry matter intake of a 600-lb heifer.
[b] Reexposed to fluoride at alternate 6 month intervals.
[c] Only one exposure to fluoride, 16-18 months of age.

contain more than 10 to 15 ppm F. As the fluoride in the concentrate mix is in the form of phosphate salts, and less readily available, the concentrate consumption offers a significant dilution of the total fluoride intake. A forage standard can then be set somewhat higher than the level which is desired in the total ration because of the dilution effect of the concentrate.

Based on a review of the literature on the effects of fluorides on cattle, and the preceding discussion of principles which must be considered to establish a standard, the following standard is proposed.

A Proposed Air Quality Standard

Application of this standard will protect cattle from economic damage and insure that dentition formed while animals are in the area covered by this standard will subsequently remain fully functional. As the effects of atmospheric fluoride are indirect, through the ingestion of contaminated forage, the standard for determining air pollution will be the concentration of fluoride in the forage. The following is to be regarded as evidence of air pollution from fluorides as it affects cattle:

1. A finding, after sampling on a monthly basis, of a yearly average fluoride content of the forage in excess of 40 ppm (dry weight basis); or
2. A finding of in excess of 60 ppm F in the forage for more than two consecutive months, or in excess of 80 ppm F for more than one month even though the yearly average does not exceed 40 ppm.
3. In areas where cattle are not grazed continually, but are fed cured forage, as hay, during the winter, the fluoride content of this hay shall be used as the forage fluoride content for as many months as it is fed to establish the yearly average.
4. All samples analyzed are to be representative of the forage actually consumed by the animals in the area. Techniques to insure that this sampling criterion is met, and methods of analysis shall be published by the appropriate board.

It is implicit in this standard that concentrations of fluoride in the forage which are not regarded as evidence of air pollution by criterion 1 or 2 will not present any hazard to livestock production.

The mass of available evidence would indicate that this standard, which is offered as a tentative proposal, is one which would allow livestock production to proceed in an area with no interference, and yet is one which would allow industry in the area a certain degree of flexibility. It has the advantage of being much more realistic than those which are based on a single value and which make no definite provision for using an average of samples taken at various times[17] and offers more protection to livestock than a standard based only on the yearly average[18] with no limit on short term high exposures. It is apparent that in those areas of the country where the soil is high in fluoride, that very high levels of fluoride can accumulate on the forage as a result of wind blown dust or soil splash from heavy rains.[19] In these areas, the proposals outlined would have to be substantially altered.

Summary

The ingestion of forages contaminated with inorganic fluorides from industrial sources constitutes an air pollution problem for domestic livestock. In cattle, which have been studied most extensively, the syndrome is characterized by dental and skeletal lesions, lameness, chemical evidence of increased fluoride ingestion, and in severe cases by effects on appetite and milk production.

The only practical basis for a standard appears to be one based on forage fluoride concentrations. It is concluded that a standard should protect cattle from loss of milk production and from severe dental fluorosis, but need not be set so low that the animals will be protected against any discernible deviations from normal which do not influence their general health, productive ability or the soundness and wearing quality of their dentition.

As there may be wide seasonal variations in forage fluoride concentrations, the basic standard should be expressed as a yearly average of the forage fluoride concentration. However, as the developing teeth may be adversely influenced by short periods of high exposure, the standard should contain a provision which limits both the extent and duration of time that high concentrations may be tolerated even though they are balanced by lower values at other months. Based on these criteria, a tentative standard which limits forage fluoride to an average of 40 ppm, and limits the time that forage concentrations may exceed 60 or 80 ppm F is proposed.

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Effect of a Short Period of Fluoride Ingestion on Dental Fluorosis in Cattle

J. W. Suttie, Ph.D., and E. C. Faltin, M.S.

SUMMARY

The effects of the ingestion of 2.5 mg. of fluoride per kilogram of body weight by dairy heifers during their 13th to 15th or 16th to 18th months of age were studied. This short-term exposure was sufficient to cause severe dental fluorosis in at least one pair of incisors, especially in the 2nd group of heifers, even though the total fluoride intake was not excessive. The plasma fluoride concentrations rapidly increased to 0.5 p.p.m. in both groups of heifers and decreased rapidly after fluoride was removed from the ration. Evidence of dental fluorosis was seen when crown formation was completed before exposure to fluoride and also when the fluoride exposure preceded any calcification of the crown. The most severe effects were seen when the exposure coincided with the initiation of crown formation for a particular incisor. Fluoride analysis of consecutive chronologic sections of the avascular enamel indicated that there was a regular pattern of enamel apposition from the top to the bottom of the crown of one incisor before the top of the crown of the next incisor calcified.

The developing bovine tooth is sensitive to fluoride damage, and the subsequent abnormalities in the permanent dentition are the most obvious sign of the ingestion of increased concentrations of fluorides in the ration.[2,8,13] The cells of the enamel-forming organs, the ameloblasts, are extremely sensitive to fluoride, and the matrix laid down by those cells in the presence of an increased concentration of plasma fluoride is faulty and calcifies abnormally.[7] The chronology of tooth development in cattle has been studied,[1] and the various stages of tooth development are well documented. As most experimental studies of the effects of fluoride ingestion on cattle have involved the continuous administration of fluoride for an extended period, little is

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From the Department of Biochemistry, College of Agricultural and Life Sciences, University of Wisconsin, Madison, Wis. 53706.

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TABLE 1—Interpretation of Tooth Scores

Score	Appearance of Incisor Tooth
1 —	A normal tooth or one with a non-fluoride-caused lesion.
2 —	Slight fluoride effects, usually mottling in a horizontal pattern, seen best with transmitted light. Surface of the tooth usually has a good luster.
3 —	General mottling to the extent that the surface of the tooth has an overall chalky appearance.
4 —	General mottling accompanied by hypoplasia of the enamel. May show increased wear.
5 —	General mottling, hypoplasia, and wear to a greater extent than for score 4. Erosion of enamel from dentin.

known of the exact stage of development during which each tooth is sensitive to fluoride.

The purpose in the present study was to assess the subsequent damage seen in the permanent incisors of calves given a moderately high concentration of dietary fluoride for a short period.

Materials and Methods

Six Holstein-Friesian heifers were allotted to 2 groups of 3 each and were given a daily ration consisting of 0.9 kg. of a standard 16% protein concentrate and alfalfa-grass hay free choice. The ration contained less than 10 p.p.m. of fluoride. Heifers of group 1 were given 2.5 mg. of fluoride per kilogram of body weight per day during their 13th, 14th, and 15th months of age, and the heifers of group 2 were given the same dose of fluoride during their 16th, 17th, and 18th months of age. The daily dose of fluoride was divided and given twice a day as a NaF premix in the concentrate. The heifers were weighed twice a month, and the amount of fluoride to be administered was adjusted to body weight changes. Blood samples were collected from the jugular vein, and plasma fluoride concentration was determined as described by Singer and Armstrong.[9]

The experiment was terminated when the heifers were 4 years old. The degree of fluorosis seen on each incisor was given a numerical score[4] (Table 1). The left incisor was dried, ground, and separated into enamel and dentin as described by Manly and Hodge.[4] The enamel surface of each right incisor crown was marked into 5 approximately equal horizontal sections which were then ground from the dentin with a dental drill equipped with a diamond bit. The material ground from the crown was recovered and put through the separation procedure to remove any traces of dentin. The 11th coccygeal vertebra was removed at slaughter and analyzed as a measurement of total fluoride exposure.[12] Duplicate fluoride analyses were performed on all tooth and vertebra samples by ashing the samples at 600 C., dissolving the ash in 5% $HClO_4$, and determining the fluoride in the dissolved ash by an automatic analyzer procedure for fluoride.[5,10]

Results

The data (Table 2) indicate that the plasma fluoride concentration of the calves responded rapidly to the elevated fluoride intake, did not vary during the 3 months' exposure, and rapidly decreased to approximately normal values when the fluoride-exposure period was ended. The developing incisors were thus exposed to increased cellular fluoride concentrations for only a short time. Even though the plasma fluoride concentrations in the 2 groups of heifers were similar, there was a slightly greater vertebral fluoride retention in the group 1 heifers which were exposed at an earlier age (Table 3).

Data on the period of permanent incisor crown formation in the bovine animal are summarized and put in the perspective of this experiment (Fig. 1). The fluorosis score for each pair of incisors for each heifer is also shown. Exposure of the heifer to fluoride during

TABLE 2—Effect of Administering 2.5 mg. of Fluoride per Kilogram of Body Weight on Plasma Fluoride Concentration of Heifers

Time	Concentration* of fluoride in plasma (μg./ml.) Group 1	Group 2
Pre-exposure period	0.02 ± 0.01	0.02 ± 0.01
Exposure period		
2 weeks	0.50 ± 0.10	0.52 ± 0.05
1 month	0.51 ± 0.08	0.54 ± 0.02
3 months	0.51 ± 0.06	0.55 ± 0.03
Post-exposure period		
2 weeks	0.12 ± 0.02	0.10 ± 0.01
10 weeks	0.05 ± 0.02	0.03 ± 0.01

* Mean ± standard error of the mean.

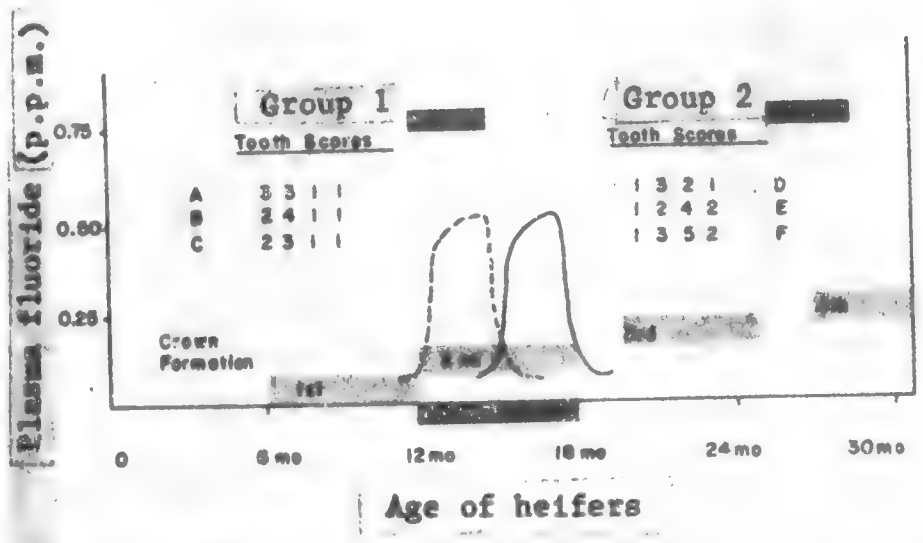

Fig. 1—Experimental design, tooth scores, and period of increased plasma fluoride concentrations in heifers. The light cross-hatched areas indicate the periods of crown formation as reported by Brown *et al.*,[1] and the curves indicate the duration of increased plasma fluoride concentrations relative to these periods. Heifers in both groups were given 2.5 mg. of fluoride per kilogram of body weight for the 3 months indicated by the shaded bars on the horizontal axis. Eruption of each incisor into the oral cavity occurred approximately 12 months after the completion of the crown. The scores indicated are for the 1st, 2nd, 3rd, and 4th incisors of heifers A through F.

TABLE 3—Effect of Administering 2.5 mg. of Fluoride per Kilogram of Body Weight on Incisor- and Vertebra-Fluoride Concentrations, Incisor Score, and Incisor Enamel Content of Heifers

Heifer identification	Fluoride in ash (p.p.m.)			Incisor		
	Vertebra	Dentin	Enamel	No.	Score*	Enamel content (% of tooth)
Group 1 (exposed during 13th, 14th, and 15th months)						
A	1,010	1,520	500	1	3	15
		813	634	2	3	20
		438	154	3	1	25
		316	96	4**	1	23
B	5,270	1,785	354	1	2	8
		1,740	1,570	2	4	14
		763	272	3	1	23
		460	162	4**	1	21
C	1,880	1,565	468	1	2	20
		831	447	2	3	21
		444	182	3	1	20
		336	95	4**	1	20
Group 2 (exposed during 16th, 17th, and 18th months)						
D	1,970	1,465	117	1	1	24
		1,600	1,160	2	3	5
		772	316	3	2	25
		468	152	4**	1	23
E	1,780	1,460	124	1	1	20
		1,600	408	2	2	7
		1,120	754	3	4	14
		475	182	4**	2	21
F	1,860	1,520	110	1	1	24
		1,800	510	2	3	14
		1,580	1,960	3	5	7
		614	209	4**	2	17

* See Table 1. ** Also named canine tooth.

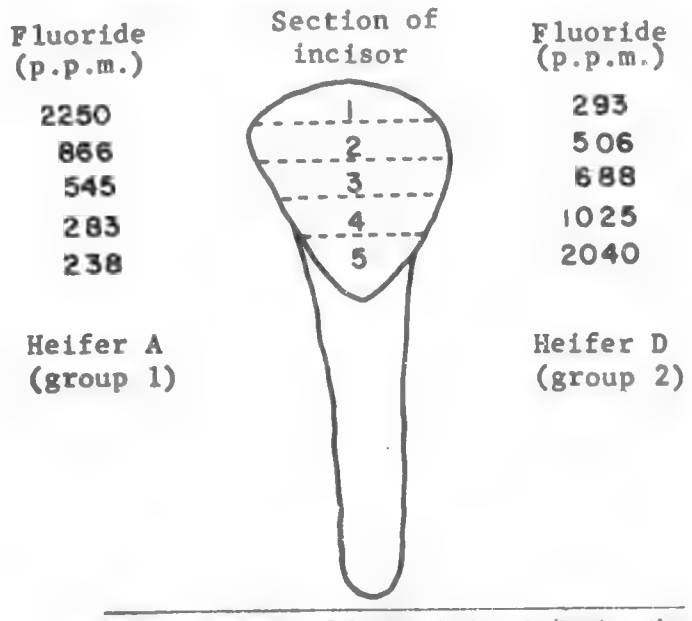

Fig. 2—Diagram of bovine incisor indicating the 5 sections of enamel that were separated for analyses. The values are enamel ash fluoride concentrations for each section of the 2nd incisor of the 2 heifers used as examples. See Table 2 for the average fluoride content of the enamel and denture of these teeth.

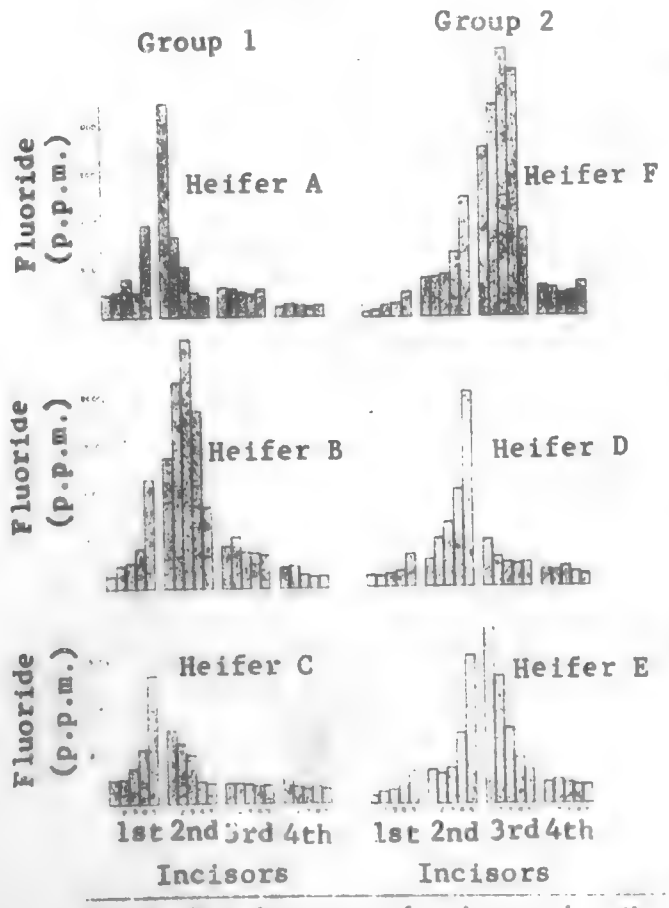

Fig. 3—Fluoride content of each enamel section (see Figure 2) from each incisor of all heifers in the experiment.

the period (13th through 15th month of age) when the first part of the crown of the 2nd incisor is calcifying (group 1) resulted in an effect on only the 1st and 2nd incisors. Exposure during the 16th through 18th months of age (group 2) caused substantial damage to the 2nd and 3rd incisors, and in 2 of 3 heifers, an effect on the 4th incisor or canine tooth, but did not affect the 1st incisor.

The accumulation of fluoride in the dentin, which retains a vascular system after calcification, was a function of the period of exposure, and the fluoride content of the dentin of the 1st incisor was nearly the same in both groups of heifers (Table 3). The dentin from the 2nd incisor of the group 2 heifers had a high fluoride concentration, but there was presumably little 2nd incisor dentin formed prior to fluoride administration in all but one of the group 1 heifers, and the fluoride concentration of the 2nd incisor dentin in this group was generally lower than that in the 1st incisor.

As has been reported,[5,13] the tooth score, which is a measure of fluoride damage, was related both to the fluoride concentration of the enamel and to the amount of enamel. In general, those teeth which were considered to be normal (score No. 1) had enamel fluoride concentrations of less than 200 p.p.m.; those scoring No. 2, from 200 to 500 p.p.m.; and those scoring No. 3, from 400 to 1,000 p.p.m. The teeth scoring 4 or 5 had enamel fluoride concentrations of more than 750 p.p.m. (Table 3). These teeth also seemed to have a more severe hypoplasia of the enamel than those which had a lower fluorosis score, although the amount of enamel was not directly related to this subjective tooth evaluation.

The data (Fig. 2) illustrate that the enamel is capable of retaining high concentrations of fluoride during a rather limited period during its development and that there are large variations in the fluoride concentration of the enamel from different parts of the same tooth. It is apparent from the data (Fig. 3) that the calcification of the enamel pro-

ceeded from the top to the bottom of the crown of one incisor before calcification began at the top of the next incisor. Although the absolute increase in fluoride concentration varied from one heifer to another, the 3-month exposure consistently produced increased enamel fluoride concentrations in only 4 or 5 of the 20 chronologically related samples collected. The period of maximal deposition was about half a tooth later when the exposure was delayed by 3 months.

Discussion

Cattle experimentally fed a constant amount of fluoride for an extended period usually have all of their incisors affected by fluoride to the same degree or have an increased severity of effects from the 1st to the 4th incisor. This regularity in response is seldom seen under field conditions. In areas where dental fluorosis is enzootic, it is not uncommon to find animals with mouths which would score 1–2–4–2 or 2–4–2–3.[5] The conditions that produce these effects have to some extent been duplicated by Carlson[a] in an experiment with cattle exposed to fluoride for alternating 6-month intervals. The data in the present report are, however, the first to indicate that severe effects can be produced by very brief exposures to increased concentrations of dietary fluoride.

These changes in incisors of cattle after short-term exposures to high concentrations of fluoride are important in areas where industrial fluorosis is a problem and indicate that proposed air pollution regulations should be written with this in mind.[11] Even though the skeletal fluoride concentrations of the heifers in the present experiment did not approach those which are associated with other damaging effects of fluoride,[6] some teeth were damaged enough so that they might be expected to wear abnormally fast.

These data indicate that the period of tooth formation during which the tooth is sensitive to fluoride is somewhat longer than may have been thought. An examination of Figure 1 leads to these two conclusions. First, the incisor can show effects of fluoride if the exposure comes during the tooth maturation period that follows the radiologically determined completion of crown formation. This is shown by the effects seen on the 1st incisor in the heifers from group 1. Second, the effects of fluoride ingestion on the 3rd and 4th incisors in the group 2 heifers indicate that damage can occur even if the exposure precedes any radiologic evidence of crown formation.

It is of interest that there were no 3rd incisors affected in the group 1 heifers, but that 2 of the 3 heifers in group 2 had 4th incisors that were slightly influenced. The period between the decrease of high plasma fluoride concentrations and the formation of the 4th incisors in the group 2 heifers was certainly longer than the period between the decrease in high plasma fluoride concentrations and the formation of the 3rd incisor in the group 1 heifers. This seems to verify the usual observations in the field that the 4th incisor is much more sensitive to fluoride than are the other incisors. Generally, these data indicate that exposure of heifers to fluoride affected some teeth that had been completely calcified prior to the exposure, and also affected some teeth that were as much as 4 to 6 months away from the beginning of calcification. These estimates are based on the average chronology of incisor development and could vary by 1 or 2 months in the individual animal of the present experiment.

The correlation between enamel hypoplasia and tooth score was not as pronounced in the present experiment as was reported in another study.[5] The reason is undoubtedly the short period of exposure in the present experiment. Our data (Fig. 1 and Table 3) seem to indicate that enamel hypoplasia is the result of fluoride exposure during actual tooth calcification or even the later maturation phases rather than during the formation of the organic matrix; usually

[a] Carlson, J. R.: Studies on the Metabolism of Sodium Fluoride. I. Plasma Fluoride in Relation to Dietary Fluoride in Dairy Cattle. Ph.D. Thesis, University of Wisconsin, Madison, 1966.

the most severe hypoplasia occurred on an incisor which should have been almost completely calcified before exposure. Additional studies with closer control of the fluoride exposure and simultaneous radiologic examination will be needed to ascertain this point.

Data (Fig. 3) indicate that a measurement of enamel fluoride content can provide an accurate estimation of the period during which an animal was exposed to increased fluoride and the duration of that exposure. This nonvascular tissue is capable of accumulating fluoride only during a short formative period, and the fluoride retained will be a permanent record of the exposure.

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Effects of Alternating Periods of High- and Low-Fluoride Ingestion on Dairy Cattle

J. W. SUTTIE, J. R. CARLSON,[1] and E. C. FALTIN
Department of Biochemistry, University of Wisconsin, Madison 53706

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J. W. SUTTIE, J. R. CARLSON,[1] and E. C. FALTIN
Department of Biochemistry, University of Wisconsin, Madison 53706

Abstract

Two- and five-month old Holstein heifers were exposed to different intake patterns of dietary fluoride for 6 years. They were divided into five lots: Control, no fluoride supplement (I); continuous exposure to 1.5 mg F/kg body weight per day (II and IV); alternating exposure to 1.5 mg F/kg for 6 months and control for 6 months (III); or 3.0 mg F/kg for 4 months and .75 mg F/kg for 8 months (V). The average yearly exposure of Lot V was equal to Lots II and IV while that of Lot III was equal to half of this intake.

None of the fluoride treatments affected growth rate or reproduction. There was no consistent effect on milk production. Plasma fluoride concentrations closely followed current fluoride intake. Urinary fluoride concentrations varied with intake but remained elevated during low intake. Skeletal fluoride retention was directly related to total fluoride intake and not to pattern of intake. The degree of dental fluorosis was related to the amount of fluoride fed and to the plasma fluoride concentration at the time each incisor was developing. The dental lesions observed in Lot III (alternate exposure) were similar to those often seen in field cases of fluoride exposure.

The most severe effects of fluoride ingestion were in Lot V (high and low intake). These animals had severely worn molar teeth, extensive osteofluorosis, and they experienced periods of extreme lameness. Short periods of high fluoride intake balanced by periods of lower intake were more damaging to cattle than constant exposure to the same average yearly intake.

Introduction

The chronic disease resulting from ingestion of excessive amounts of fluoride by domestic animals has been produced experimentally, and the general fluoride tolerance of various species has been established (19). The disease is characterized by specific lesions of the developing dentition, skeletal lesions, intermittent lameness, and in several cases by impairment of appetite. Although some of these symptoms could easily be confused with other diseases, chemical evidence of increased amounts of fluoride in skeletal tissues, urine, and to some extent in blood and soft tissues, provide a definitive diagnosis of this condition. These effects of the ingestion of soluble fluorides by dairy cattle have been previously studied by Suttie, Phillips, and coworkers (20, 33 to 36, 38, 39), by Greenwood and Shupe and their associates (9, 24, 27, 28), and by Newell and Schmidt (18). Studies of fluorosis of beef cattle (10) have also been of value in assessing the dairy cattle problem. All of these studies have used sodium fluoride as the source of fluoride in the ration, and results of these investigations have been summarized and compared (1).

Current interest in fluoride toxicity results mainly from the occurrence of fluorides as industrial air pollutants (1, 30). The nature of dental lesions in geographic areas where fluoride toxicity is endemic (3, 15, 16), has shown that fluoride exposure in these areas is not uniform but rather is intermittent. In general, analysis in such an area indicates that the fluoride concentration of forage is rather low in the spring and summer when forage growth is rapid and rises rapidly in fall or during extended dry periods when vegetative growth slows. How these variations in fluoride intake might influence fluoride toxicity has not been determined.

Previous studies of the effects of fluoride ingestion on dairy cattle have involved the addition of a constant amount of fluoride to the ration for an extended period and do not closely duplicate field conditions. The objectives of our study were to determine effects of alternating periods of high and low fluoride ingestion on dairy cattle and to compare toxicity symptoms of fluoride administered in this fashion to those when the same amount of fluoride is administered continually.

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[1] Present address: Department of Animal Science, Washington State University, Pullman 99163.

Methods

Dietary treatments. Five lots of either three or four Holstein females each were studied for 74 to 77 months. The fluoride ingestion of each lot is shown in Table 1. Lot IV was a replicate of Lot II except that the animals were nearly 5 months old rather than 2 months at the start of the study. Lots II, IV, and V received the same amount of fluoride per year on a body weight basis (1.5 mg F/kg body weight per day) while Lot III received half that amount. Previous studies (33) have indicated that 1.5 mg F/kg is somewhat in excess of the fluoride tolerance of dairy heifers of this age.

Feeding and husbandry. The cattle were fed corn silage, all the mixed hay they would consume, and a standard dairy concentrate (34). One kilogram of this grain mix was fed for each 4 kg of milk, and .9 kg of grain per animal per day was fed during dry periods. The growing heifers were fed 1.35 kg of grain per day. The forage contained 2 to 4 ppm F, and the grain mixture 3 to 7 ppm F. These values are similar to those recently reported for forage and concentrates (31). Twice daily, a weighed portion of a grain premix containing 8 mg/g of fluoride as NaF was placed on the regular feed.

Every 2 weeks the animals were weighed and fluoride intake was readjusted. Milk production was recorded daily and milk fat content determined monthly. General health and breeding records were maintained. Animals were artificially inseminated beginning the first estrus period after they were 15 months old. Animals were confined to barn stalls except for 2 hr of exercise each day.

Dental effects from fluoride ingestion. At 6 month intervals, incisors were inspected for damage, photographed, and scored according to a modification (30) of the numerical classification of Hobbs et al. (11). After slaughter, both incisors and molars were inspected and photographed, and the left incisor of each pair was divided into enamel and dentin by the method of Manly and Hodge (13).

Analytical procedures. Samples of vertebrae were obtained by tail biopsy (21, 29) during the experiment, and a coccygeal vertebra, the mandibles, maxilla, and all of the bones of each leg below the knee joint were obtained at slaughter. The bones were cleaned of flesh by boiling them in a weak detergent solution. For fluoride analysis, the entire vertebra was ashed, and a representative sample of the other bones used (37). Ashed samples of skeletal and dental tissue were analyzed for fluoride by either the Willard and Winter (40) method or by an autoanalyzer procedure (6). Blood samples from each animal by jugular puncture were preserved with heparin at 7 days after, 1 month after, the midpoint, and the end of each change in fluoride intake. During the last 3 years that Lots I, II, III were on experiment, and during the entire experiment for Lots IV and V, blood was also sampled at 1, 3, and 5 days after the changeover dates. Hemoglobin in the blood was measured by the acid hematin method of Cohen and Smith (5). Blood for determination of serum enzyme activity was obtained from the jugular vein. Serum activity of glutamic-oxaloacetic transaminase, glutamic-pyruvic transaminase, aldolase, and lactic dehydrogenase was determined with the Boehringer reagent packages (distributed by Calbiochem, Los Angeles, California) and isocitric dehydrogenase activity with Determatube-ICD of Worthington Biochemicals Co., Freehold, New Jersey. Most of the plasma fluoride values were obtained by either the microdistillation (25) or the microdiffusion (26) method of Singer and Armstrong. During the last year of the experiment the fluoride content of plasma samples from Lots IV and V was determined with a specific fluoride ion electrode similar to that described by Fry and Taves (8).

Urine samples, (200 ml) obtained at the same time as blood samples, were either ashed and analyzed for fluoride by the Willard and Winter method (40), or the unashed samples were diluted 1:10 with water, treated with $AgNO_3$ to remove chloride, and analyzed by an autoanalyzer (6).

Results

Growth, reproduction, and milk production. The average body weight of the young animals in the different groups was not influenced by fluoride ingestion, and the growth rate in all groups was similar to accepted standards for Holstein heifers (14). There were 53 pregnancies during the experiment of which 79% required only one or two services for conception. The number of conceptions requiring only one or two services were: Lot I, 87%; Lot II and IV, 70%; Lot III, 100%; and Lot V, 70%. Animals 33 (Lot 1) and 47 (Lot V) never conceived, and Cow 44 (Lot V) failed to conceive after her second lactation. Although the conception rate for the entire experiment was low, the data do not support any direct effect of fluoride ingestion on reproduction.

Milk production records (Table 1) revealed little about effects of treatments. The total kilograms of 4% fat-corrected milk produced

TABLE 1. Fluoride ingestion and milk production.

Lot	Animal	Treatment[a]	1st Lactation		2nd Lactation		3rd Lactation		4th Lactation	
			Milk[f]	Days	Milk	Days	Milk	Days	Milk	Days
I[b,d]	31	Control: no fluoride added	4,740	306	6,260	406	8,062	491	3,445	194
	32		3,027	280	3,940	333	4,885	321	4,627	394
II[b,e]	35	Fluoride added continuously,	2,837	275	2,927	320	2,510	297	2,657	301
	36	1.5 mg F/kg/day	3,320	312	3,725	322	4,007	378	3,095	315
III[b]	37	Fluoride added periodically,	4,245	331	4,637	290	4,772	256	4,155	278
	38	1.5 mg F/kg/day for 6	3,885	299	4,862	396	3,635	309	3,557	313
	39	months, control for 6 months	5,707	402	4,930	332	5,607	307	4,007	260
IV[c]	40	Fluoride added continuously,	4,502	352	4,290	351	6,000	585	.....	.....
	41	1.5 mg F/kg/day	4,075	312	3,242	296	4,052	303	4,187	335
	42		5,000	387	3,332	312	4,335	528	1,035	92
	43		3,985	315	2,950	284	3,095	252	2,452	249
V[c,d]	44	Fluoride added alternating	4,357	387	4,560	532	.....	.....	.....	.....
	45	levels, 3.0 mg F/kg/day	3,467	335	3,715	388	3,162	270	3,175	294
	46	for 4 months, .75 mg/kg/day	4,052	322	3,547	357	3,917	376	1,575	220
		for 8 months								

[a] Amount of fluoride added was in addition to that in the control ration.
[b] Started on experiment 11/1/60, removed 1/67, initial age 9 to 11 weeks.
[c] Started on experiment 1/10/63, removed 5/69, initial age 19 to 22 weeks.
[d] Repeated breedings failed to produce pregnancy in Animals 33 (Lot I) or 47 (Lot V) throughout experiment.
[e] Animal 34 (Lot II) was accidentally killed in exercise yard 9/29/62.
[f] Kilograms of 4% fat-corrected milk.

by those animals within each Lot which completed at least three lactations during the experiment amounted to: Lot I, 19,700 ± 3,400; Lot II and IV, 13,700 ± 680; Lot III, 18,100 ± 1,270; and Lot V, 13,400 ± 230 (mean ± SE). These data suggest that the animals receiving a total of 1.5 mg F/kg for the year produced somewhat less milk during the experiment. Inasmuch as the number of animals per treatment was small and there was no attempt to select heifers that had similar genetic capability for production, definite conclusions could not be drawn. Some of the better production records were achieved by cows in the control and in the 1.5 mg F/kg alternate exposure group, but there were also some reasonably good production records in the continuous fluoride exposure group.

Systemic effects. Previous studies (9, 11, 33) indicate that a fluoride intake of 3.0 mg F/kg might decrease dry matter intake. During the last 2 years of the experiment, voluntary hay consumption of Lots IV and V was measured as the cows in Lot V were switched from .75 mg F/kg to 3.0 mg F/kg. Although grain intake was not influenced, there was a slight drop in hay consumption when more fluoride was fed.

The weight of Animal 47 (Lot V), the only animal in which mature body weight changes were not complicated by pregnancy, is plotted in Figure 1. In this animal, the period of high intake (3.0 mg F/kg) reduced body weight and presumably ration intake throughout the experiment. It also appears that after 4 years, this animal was no longer able to recover during low exposure.

During their 4th and 5th exposure to 3.0 mg F/kg Cows 44 and 47 (Lot V) were generally lame, stiff, and in poor condition. They improved the 8 month low intake (.75 mg F/kg) period. During the last 1.5 to 2 years of the experiment, however, these animals were in poor condition and lame most of the time. Near the end of the experiment, Cow 44 was in extremely poor physical condition and would no longer stand. She was, therefore, slaughtered a few weeks before the remainder of the animals. The other two animals in Lot V were not excessively lame, and the cattle in Lots II and IV (1.5 mg/kg F, continuous) had only minor periods of lameness.

Assay of serum for tissue enzymes has been used as one index for determining liver damage. There was no effect of fluoride ingestion on the serum activity of glutamic-oxaloacetic transaminase, glutamic-pyruvic transaminase, aldolase, lactic dehydrogenase, or isocitrate dehydrogenase. This lack of effect of fluoride on cellular integrity is consistent with previous reports (12).

Although hemoglobin concentrations in the controls were significantly higher, statistically, than in the other groups, the levels of all the

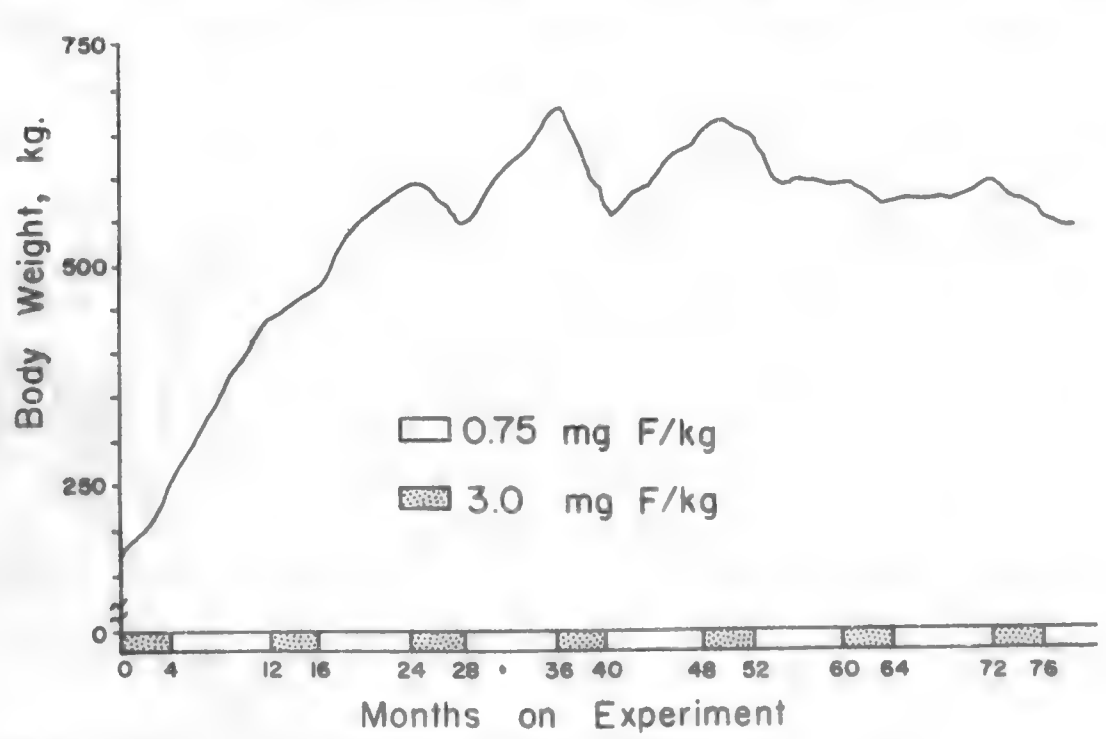


FIG. 1. Growth rate and mature body weight fluctuations of Cow 47 (Lot V).

groups over the course of the experiment were within a normal range. Averages of all samples for the respective groups are: Control, 11.4 ± .13; Lot II, 9.7 ± .41; Lot III, 10.0 ± [illegible]; Lot IV, 10.3 ± .21, and Lot V, 9.7 ± [illegible] (g Hb/100 ml, mean ± SE).

Fluoride concentrations. Data in Figure 2 show a close positive relationship between concentration of plasma fluoride and dietary fluoride. The plasma F concentration of the group receiving 3 mg F/kg for 4 months rose to near 1.0 ppm during this time while those animals receiving 1.5 mg F/kg either continually or every 6 months seldom had a plasma F content that exceeded .7 to .8 ppm. Plasma fluoride concentrations in cattle receiving 1.5 mg F/kg for alternating 6 months periods (Lot III) dropped to nearly control levels during the off period while plasma fluoride concentration of the cattle in Lot V (3.0 or .75 mg F/kg) dropped to only about .3 ppm during the low fluoride period. The control group had plasma fluoride concentrations that were usually under .1 ppm F and were often below .05 ppm.

The data from all of the urine sampling dates for each exposure period have been grouped together and the average urinary fluoride concentration and the range of values during each period are in Figure 3. These data indicate that the urinary fluoride concentration represented mainly the current intake. Urine samples from the control group averaged about 3 ppm F whereas samples from animals which had 1.5 mg F/kg fluoride in the ration all year averaged 50 to 70 ppm F. During the 6 months that they were exposed to fluoride, the cattle in Lot III had a urinary fluoride concentration of from 40 to 70 ppm. There appeared to be a general in-

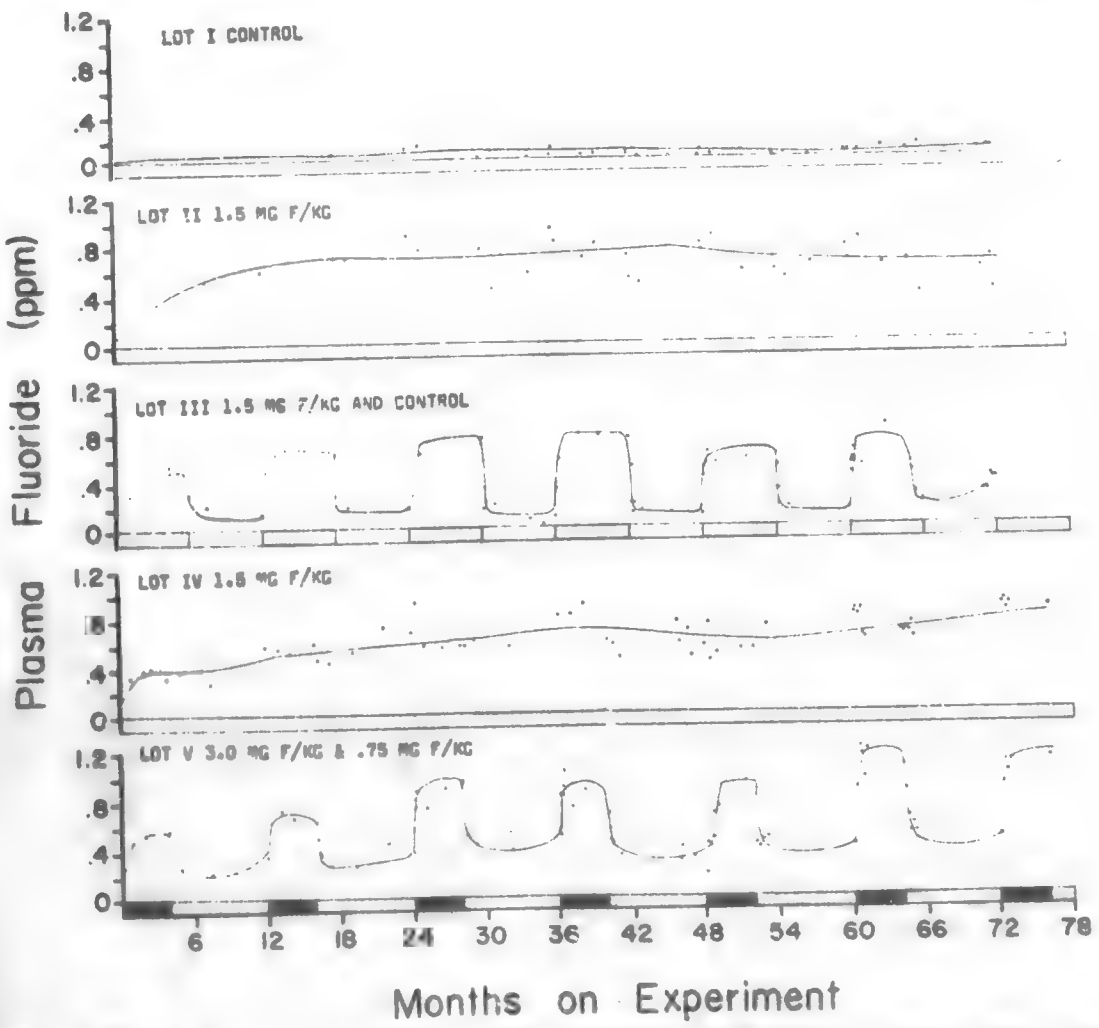


FIG. 2. Effect of fluoride ingestion on plasma fluoride concentrations. Each point represents an average of all animals in each group for that period. Alterations in fluoride intake at various times are shaded areas at the bottom of each curve.

crease in the urinary fluoride concentration of the cattle in Lot III during their control period as the experiment continued. When the animals in Lot V were consuming 3.0 mg F/kg, their urinary fluoride concentration was much higher than that of the animals in Lots II or IV (1.5 mg F/kg) but was only slightly lower during the .75 mg F/kg periods. The range of values reveals wide variability in urinary fluoride concentration encountered among animals being fed the same amount of fluoride.

Data on the fluoride concentration of vertebral biopsies (Fig. 4) indicate that there was measurable loss of fluoride from the skeleton

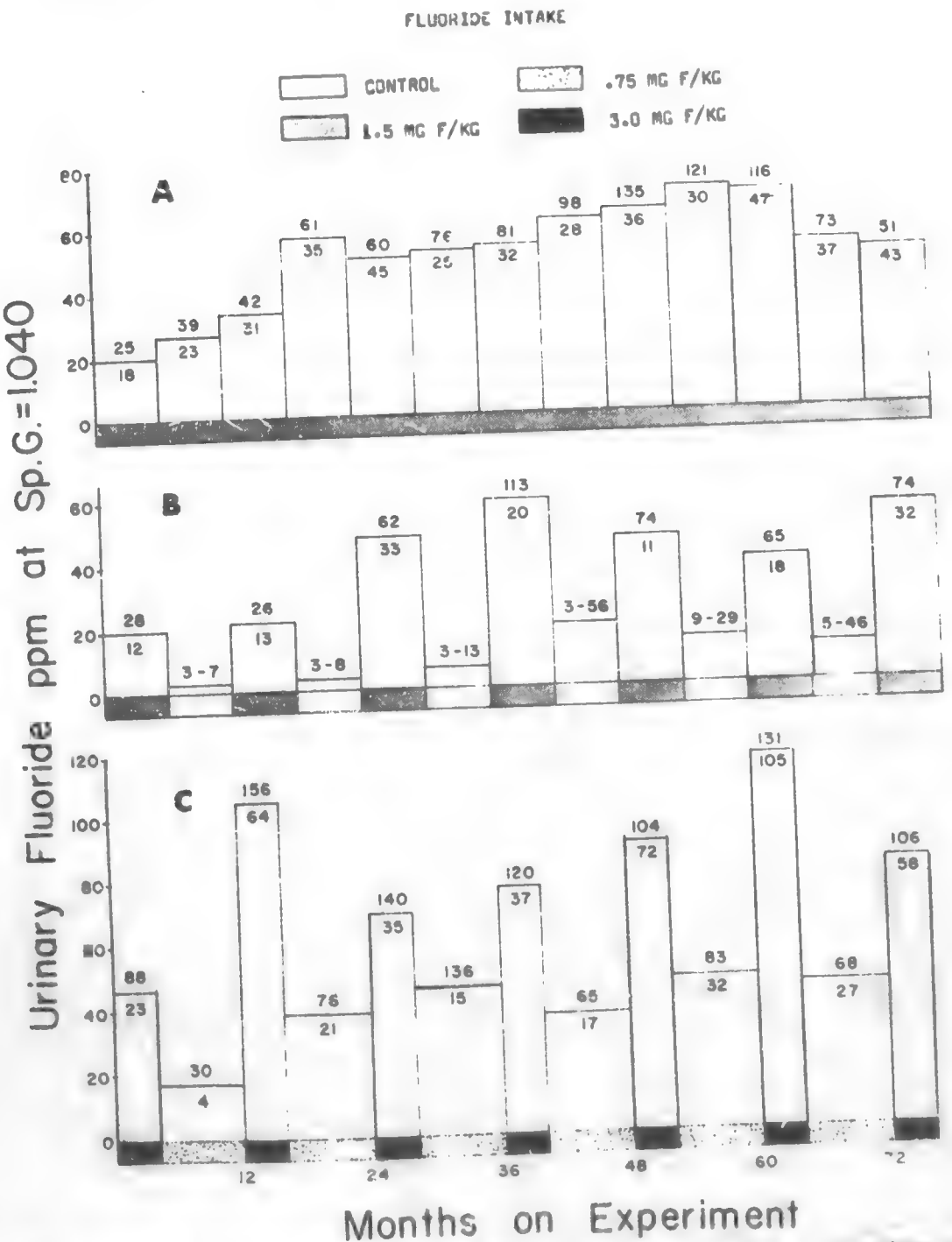


FIG. 3. Effect of fluoride ingestion on the average fluoride concentration of urine from animals fed fluoride. A, represents Lot II; B, represents Lot III; and C, represents Lot V. Numbers above and below the top of the bars represent the range of all values during the period. Fluoride intake of each of the groups is indicated at the bottom of each figure.

TABLE 2. Effect of fluoride ingestion on fluoride concentration of skeletal tissue obtained at the termination of the experiment (74 to 77 months).

Lot	Fluoride treatment[a]	Mandible	Metacarpal	Vertebrae
		—(ppm F, dry fat-free wt)—		(ppm F, ash wt)
I	Control (3)	210 ± 30[b]	255 ± 29	552 ± 89
II	Continuous (2)	8,300	7,970	15,200
IV	Continuous (4)	7,970 ± 390	8,510 ± 340	14,970 ± 190
III	Periodic exposure (3)	4,450 ± 490	4,310 ± 310	7,660 ± 540
V	Alternating exposure (4)	8,070 ± 260	8,740 ± 460	14,270 ± 630

[a] See Table 1 for details.
[b] Values are means ± SE for the number of animals in parentheses.

of the animals in Lot III (alternate 1.5 mg F/kg) during the periods that they were not exposed to fluoride. The differences in skeletal fluoride accumulation among Lots II, IV, and V at different times were minor indicating that the total fluoride intake rather than its pattern was the important parameter in determining the rate of skeletal fluoride accretion. The fluoride content of biopsies after a complete on-off cycle of fluoride exposure for Lot III indicated that the skeletal fluoride retention in this group was roughly half that in the continuous 1.5 mg F/kg group (Lot II).

This correspondence between total fluoride intake and skeletal fluoride concentration is best demonstrated by the data in Table 2. Lots II, IV, and V which received an average of 1.5 mg F/kg for the year, had similar bone fluoride concentrations, but Lot III which received this amount for only half of the period had only slightly more than half of this amount.

Effects on bones. Some evidence of osteofluorosis was seen in all groups ingesting fluoride, which caused an increase in the circumference of the metacarpal and metatarsal bones relative to their length and a significant incidence of generalized hyperostosis and of exostotic lesions. The incidence of these lesions in the various groups is indicated in Table 3. Examples of the types of lesions on the metatarsal bones are in Figure 5. It is evident from these examples that a given intake produced widely differing responses. Figure 6 shows ground cross sections of representative bones from these groups. In the bone from Lot V, (3.0 and .75 mg F/kg) almost all of the original dense cortical bone has been resorbed, and most of the bone mass consists of new less dense bone formed by periosteal stimulation. This condition was seen to a lesser degree in the bones from the other animals receiving fluoride. Although attention has most often been directed toward the fluoride induced lesions of the long bones, other bones also are

TABLE 3. Effect of fluoride ingestion on metacarpal and metatarsal hyperostosis.

Lot	Fluoride treatment[a]	Ratio circumference to length		Number with damage score[c]			
		Metacarpal	Metatarsal	1	2	3	4
I	Control (3)	.511 ± .010[b]	.457 ± .010	6	0	0	0
II and IV	Continuous (6)	.560 ± .066	.524 ± .009	0	3	7	2
III	Periodic exposure (3)	.518 ± .018	.506 ± .013	1	3	2	0
V	Alternating exposure (4)	.586 ± .018	.540 ± .017	0	3	1	4

[a] See Table 1 for details.
[b] Mean ± SE for number of animals in parentheses.
[c] Metatarsal and metacarpal from each animal scored and data combined. Damage scores defined as: 1 = none observed, or very slight change. 2 = mild hyperostosis, no exostosis; 3 = mild to moderate hyperostosis, with or without exostosis; 4 = severe hyperostosis with exostosis.

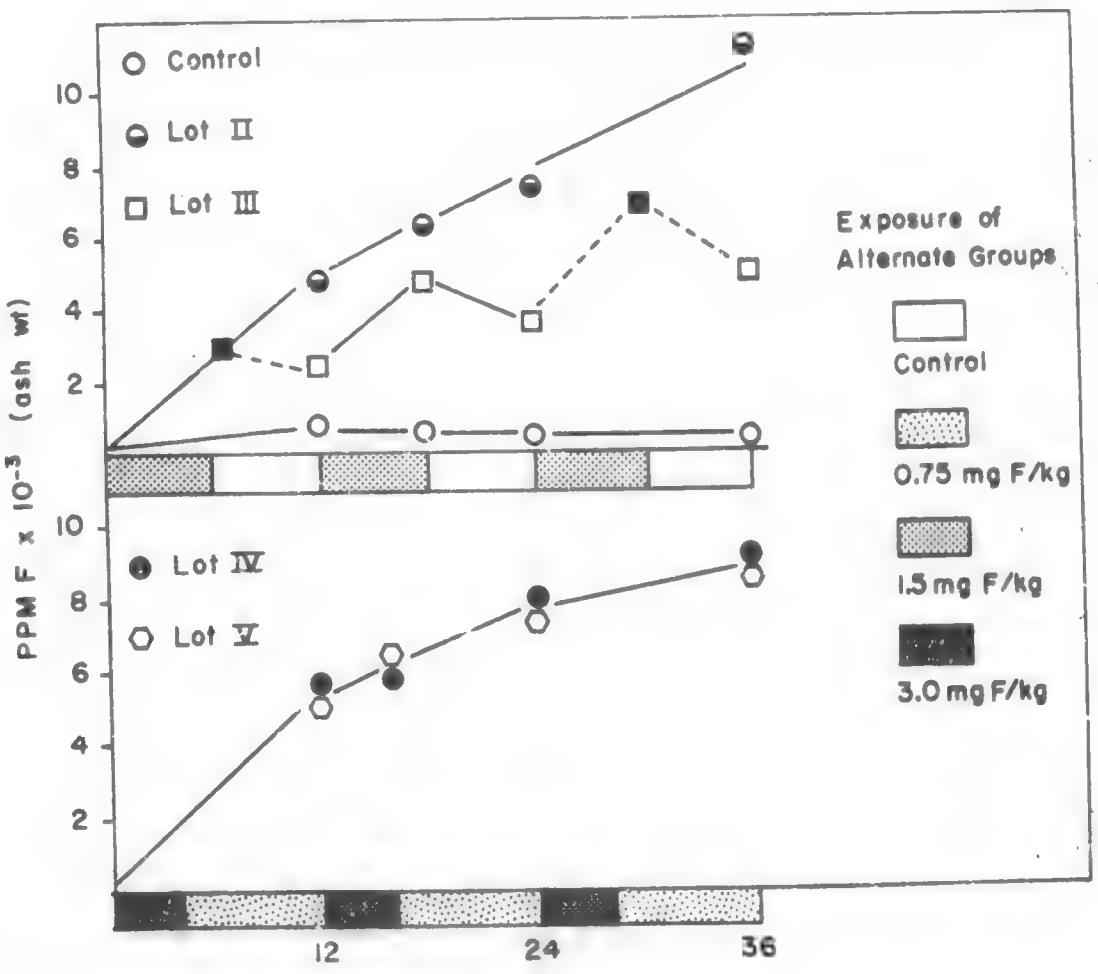


FIG. 4. Concentration of fluoride in vertebral biopsy samples. Values plotted are means of all animals in each group. The two solid squares and the dotted lines on the curve for Lot III are values extrapolated from data provided by biopsies of Lot II, and the other time points of Lot III.

affected. The pedal bone has been reported (4) to be very susceptible to fracture in cattle exposed to fluoride ingestion. These fractures were not seen in this experiment although the animals in Lots II and IV, and particularly in Lot V, developed severe hyperostosis of this bone.

Effects on dentition. The incisor teeth were inspected periodically and given a score of from 1 to 5 to indicate the severity of the fluoride induced lesions. Normal teeth were scored 1, teeth with a score of 2 or 3 showed increasing degrees of mottling, while teeth with a score of 4 or 5 showed generalized mottling and an increasing degree of enamel hypoplasia. The incisor scores are shown in Figure 7, and data on the fluoride content of the incisor, and the percentage of each tooth that was enamel are presented in Table 4. Photographs of selected incisors from each experimental group are shown in Figure 8. For two of the animals (41 and 46) photographs taken about 3 years apart are shown. The ability of the incisor to withstand wear is greatly influenced by its exposure to fluoride. The second incisor in Cow 46 was scored 5 as soon as it erupted, and it was very susceptible to wear compared to other incisors in that animal.

The incisors from the control group were all normal, had an enamel content of about 20%, and contained only a few hundred ppm F in the dentin and less than 100 ppm F in the enamel. In animals exposed continuously to 1.5 mg F/kg (Lots II and IV), all the incisors had a damage score of at least 3, and most of the teeth were scored 4 or 5. The fluoride content of both the dentin and enamel

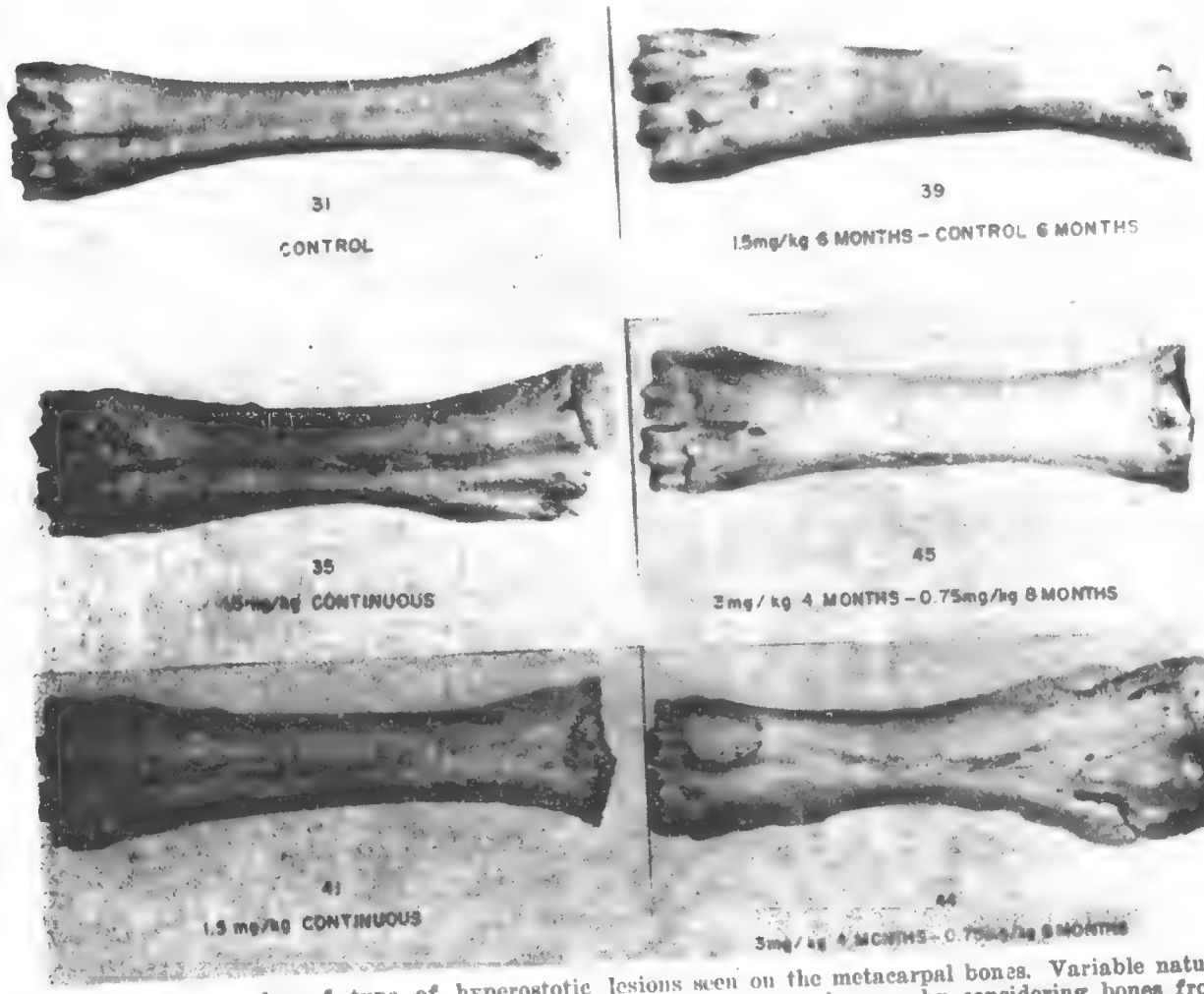


FIG. 5. Examples of type of hyperostotic lesions seen on the metacarpal bones. Variable nature of response of two animals receiving the same fluoride intake can be seen by considering bones from Cows 44 and 45, which are both from Lot V, and from Cows 35 and 41, both of which received 1.5 mg F/kg.

generally increased from the 1st to the 4th pair of incisors. The amount of enamel on the tooth was much below normal and decreased from the 1st to the 4th incisor. The two cows in Lot II which had been exposed to fluoride at 2 months of age (Animals 36 and 37) had mouths that scored 5 for all incisors while the animals in Lot IV, exposed at 5 months had first incisors that scored 3 and had 4 or 5's in the other pairs.

Those animals exposed periodically to fluoride (Lot III) developed a type of dental fluorosis that has been observed in field cases. The second and fourth pair of incisors were severely affected while the first and third pair were less severely influenced. For those animals exposed continuously, severe dental fluorosis was associated with a severe enamel hypoplasia and high fluoride content of the enamel. Fluoride concentrations of dentin generally increased from the first to the fourth incisor. Animals in Lot V (high and low alternating exposures) showed a response similar to that in Lot III. However, as they received some fluoride at all times, the improvement on some of the teeth was not as extensive as in Lot III, and the degree of dental fluorosis was not significantly different from that of the groups given 1.5 mg F/kg continuously.

Scores indicating the degree of uneven wear of the molar teeth and the extent of hyperostosis of the mandible and maxilla are presented in Table 5, and selected examples of lesions are in Figure 9. Exposure of young animals to alternating high and low dietary fluoride intakes (Lot V) caused more severe molar effects than continued exposure to a level of fluoride that furnishes the same amount of fluoride over the year (Lots II and IV). Animals in Lot III, which received fluoride for only half of each year, and had a total intake only half of that of the other groups,

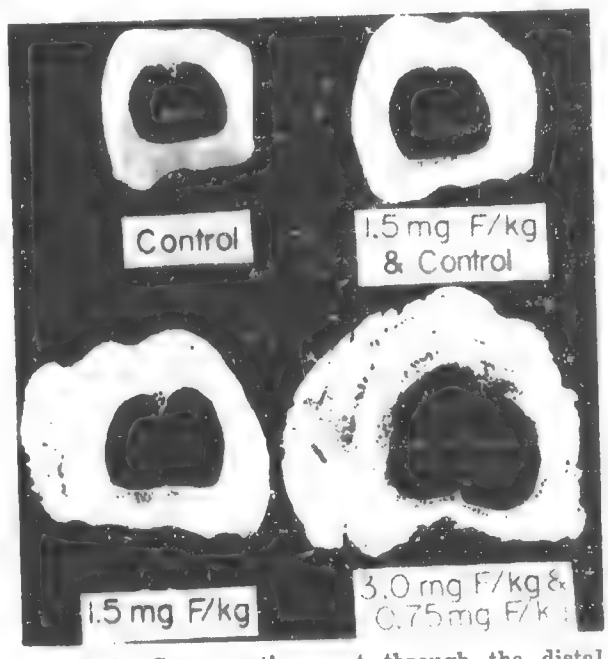


FIG. 6. Cross sections cut through the distal one-third of the metacarpal bone.

also showed an increase in molar wear compared to the controls.

Discussion

This study is the first designed to compare directly the effects of alternating periods of high and low fluoride ingestion on the response of dairy cattle. The effects, particularly on the dentition, are typical of those which have been reported in areas where fluoride ingestion is an endemic problem. The average yearly intake of fluoride fed was in excess of the usually assumed tolerance (19) and was expected to cause severe dental fluorosis, a significant degree of osteofluorosis, and excessive skeletal fluoride retention. Growth of the heifers and reproduction were not adversely affected. Total milk production of cows fed 1.5 mg F/kg either continuously or as an average of a high and low period was somewhat less than the other two groups, but as small numbers of animals were involved, the observations are inconclusive.

Skeletal fluoride retention was a good indicator of total fluoride intake even under conditions where the level of exposure has varied considerably, whereas plasma fluoride concentrations were a good indicator of only current exposure. These data also demonstrate that urinary fluoride excretion will remain elevated for some time following a change from a high to a low fluoride ration as fluoride is mobilized from skeletal tissue. This was reflected in the skeletal fluoride concentrations of cattle in Lot III (periodic exposure) which showed a definite decrease during the period that the cattle received no fluoride. Although urinary fluoride concentrations can be used as

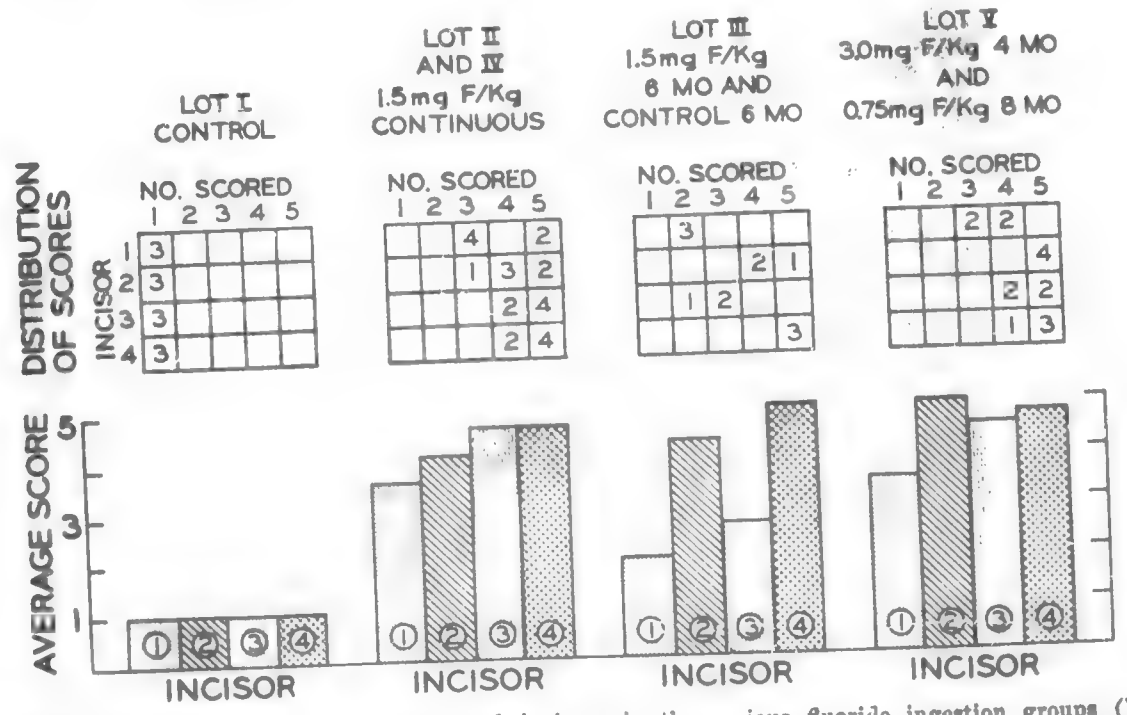
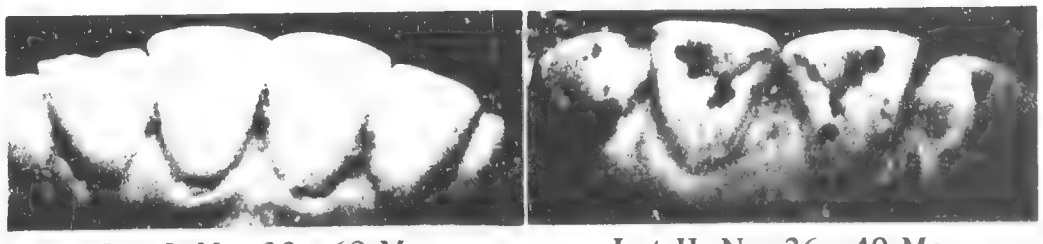


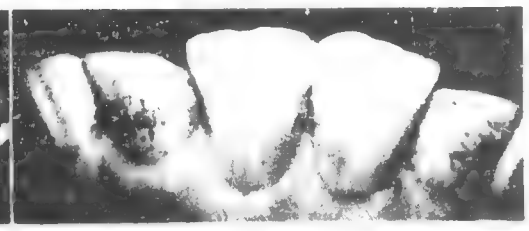
FIG. 7. Average score of each pair of incisors in the various fluoride ingestion groups (bottom) and number of animals within each group which had incisors classified in each of the categories of damage (top).



Lot I, No. 32 - 60 Mo.

Lot II, No. 36 - 40 Mo.

Lot III, No. 37 - 60 Mo.



Lot III, No. 38 - 60 Mo.

Lot IV, No. 41 - 35 Mo.

Lot IV, No. 41 - 72 Mo.

Lot IV, No. 43 - 72 Mo.

Lot V, No. 47 - 72 Mo.

Lot V, No. 46 - 35 Mo.

Lov V, No. 46 - 72 Mo.

FIG. 8. Examples of incisor teeth from each of the experimental groups. Months indicated are the ages of the animals, not the length of exposure to fluoride. Tooth scores for the animals shown are: No. 32, 1-1-1-1; No. 36, 5-5-5-5; No. 37, 2-5 3-5; No. 38, 2-4 2-5; No. 41, 3-4-4-4; No. 43, 3-3-5-5; No. 47, 3-5-5-5; No. 46, 3-5-4-4.

TABLE 4. Effect of fluoride ingestion on incisor fluoride content.

Lot	Fluoride treatment[a]	Incisor no.	F in incisor ash			Enamel
			Total	Dentin	Enamel	
			(ppm)			(%)
I	Control	1	245 ± 25[b]	341 ± 41	54 ± 11	25 ± 3
		2	223 ± 22	315 ± 55	48 ± 4	21 ± 1
		3	283 ± 41	377 ± 67	60 ± 10	19 ± 2
		4	313 ± 57	409 ± 81	85 ± 13	19 ± 2
II and IV	Continuous	1	6,595 ± 136	8,255 ± 183	1,972 ± 62	11 ± 2
		2	9,123 ± 164	10,183 ± 196	3,158 ± 141	6 ± 1
		3	10,018 ± 256	10,832 ± 121	4,368 ± 224	4 ± 1
		4	11,325 ± 147	11,645 ± 218	6,168 ± 1,045	1 ± 1
III	Periodic exposure	1	3,063 ± 73	3,823 ± 13[illegible]	537 ± 53	14 ± 2
		2	4,563 ± 243	5,020 ± 286	2,358 ± 283	7 ± 2
		3	4,243 ± 292	5,090 ± 236	877 ± 75	10 ± 2
		4	5,387 ± 428	5,737 ± 248	3,434 ± 409	3 ± 1
V	Alternating exposure	1	6,325 ± 596	7,488 ± 253	2,630 ± 654	6 ± 1
		2	9,025 ± 376	9,685 ± 331	3,360 ± 265	2 ± 1
		3	9,670 ± 331	9,510 ± 244	2,846 ± 284	4 ± 1
		4	10,667 ± 451	10,421 ± 766	6,750 ± 1,127	1 ± 0

[a] See Table 1 for details.
[b] Values are mean ± SE for the indicated incisor for all animals in the group.

a rough indication of current exposure, they should not be used to calculate fluoride intake. Such a calculation has been suggested (23), but presumably it is valid only under conditions of continual exposure which are seldom experienced in the field.

Dental changes were typical of those in field cases (3, 7, 15, 16, 17, 22), where fluoride exposure tends to be highly variable. Plasma fluoride concentrations were directly related to intake, and they should be considered in relationship to the periods when tooth formation in the bovine proceeds (2). Those incisors formed during high fluoride exposure, which resulted in elevated tissue fluoride concentrations, were severely affected. In contrast, those incisors formed during the 6 months when cattle of Lot III were not exposed to fluoride were less severely affected. These differences were not so apparent in Lot V animals which received some fluoride at all periods. Even during the low fluoride period (.75 mg F/kg) the animals in Lot V had plasma fluoride concentrations of about .3 ppm F. This was

TABLE 5. Effect of fluoride ingestion on molar wear and hyperostosis.

Lot	Fluoride treatment[a]	Hyperostosis								Uneven attrition line							
		Maxilla				Mandible				Maxilla				Mandible			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
		(Number with damage score)[b]															
I	Control (3)	3	0	0	0	3	0	0	0	3	0	0	0	3	0	0	0
II and IV	Continuous (6)	0	2	2	2	0	3	3	0	0	4	1	1	0	3	3	0
III	Periodic exposure (3)	0	1	1	1	1	1	1	0	1	1	1	0	1	2	0	0
V	Alternating exposure (4)	0	1	2	1	0	1	2	1	0	0	0	4	0	1	2	1

[a] See Table 1 for details.
[b] Score 1 = normal, 2 = mild, 3 = moderate, and 4 = severe, in reference to the degree of hyperostosis or to the extent of deviation from the normal, worn but smooth, attrition line seen in animals of this age. See Figure 9 for examples of these effects.

FIG. 9. Examples of effects of fluoride ingestion on wearing ability of molar teeth. Note the smooth even attrition line in the control animal and the uneven wear on molars of all animals fed fluoride.

apparently sufficient to cause severe dental fluorosis.

General correlations between enamel fluoride concentration, enamel hypoplasia, and tooth score previously reported (16, 38) were observed in this study. The avascular enamel tissue accumulates little fluoride after it is formed, and its fluoride content is an indication of the concentration of plasma fluoride at the time the enamel was formed. Although dentin is a vascular tissue that continues to accumulated fluoride after it is formed, the initial rate of uptake of fluoride during formation must be extremely important. In animals continuously exposed to fluoride (Lots II and IV), the dentin from the 4th incisor formed when the tissue fluoride was higher, had a higher fluoride content than did that from the 1st incisor even though the 4th incisor had been calcified and exposed to fluoride for a shorter period. The fluoride induced increase in rate of wear of molar teeth was definitely enhanced by the variable type of exposure experienced by Lot V. Effects on the molars of Lot III (periodic exposure) also were more severe than would have been predicted from a yearly ingestion of .75 mg F/kg.

The types of skeletal lesions in this experiment have previously been described (24, 39). The gross changes and the measured degree of hyperostosis were more severe when an average intake of 1.5 mg F/kg was divided between a high and a low intake period. Although the basis for the fluoride-induced lameness in cattle is not established, the severe bone lesions probably are consistent with the observation that animals in Lot V were the only cattle subject to recurring periods of severe lameness.

The overall findings from this study indicate that a given yearly intake of fluoride causes a more severe effect on cattle if it is distributed between periods of high intake balanced by lower intake than if it is ingested at one constant level. This general observation is most apparent when the effects of fluoride ingestion by Lots II and IV are compared to Lot V. Animals in Lot V suffered more severe systemic effects, showed more severe osteofluorosis, and developed more severe molar effects. We have previously shown (32) that very short exposures to high levels of dietary fluoride can result in severe dental fluorosis, and this response was apparent in the present investigation. The most damaging effect of fluoride was probably on the molars and skeletal tissues of animals in Lot V where the alternate intake resulted in uneven and severe molar wear and severe osteofluorosis.

These serious effects in the alternate exposure group must be considered in any discussion of the tolerance of cattle toward fluoride ingestion. It is particularly important that they be recognized when data from controlled experiments are used to try to establish meaningful air quality criteria (30) to protect animals from excessive fluorides.

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Fluoride Content of Commercial Dairy Concentrates and Alfalfa Forage

J. W. Suttie

The fluoride content of 168 samples of 16% dairy feed and 107 samples of alfalfa hay from different parts of the United States has been determined. The dairy feeds ranged from 3 to 296 p.p.m. of F with a mean of 21 p.p.m. of F and a median of 15 p.p.m. F. Only 7% of the samples exceeded the 90-p.p.m. limit set by the American Feed Control officials. Alfalfa hay from areas thought to be free of industrial fluoride pollution ranged from 0.8 to 36.5 p.p.m. of F, with a mean of 3.6 p.p.m. and a median of 2.0 p.p.m. There was no apparent relationship between alfalfa fluoride content and geographic location. The problem posed by dairy concentrates which are high in fluoride, but which are legally acceptable in areas where fluoride is also an industrial pollutant, is discussed.

The interest expressed in the past by dairy and beef cattle producers in fluorides as toxic agents has been directed toward the possible pollution of forages by industrial effluents containing fluorides, and the supplementation of grain rations by fluoride-bearing phosphate ingredients (Phillips *et al.*, 1960; Suttie, 1964). At the present time there is also interest in using forage fluoride analyses as the standard for protecting livestock, mainly cattle, from industrial pollution (Suttie, 1969). The standards proposed have assumed that the rest of the ration would contain relatively little fluoride. The Association of American Feed Control Officials (1966) sets a limit of 90 p.p.m. of F in feeds for cattle, and somewhat higher limits for other livestock species. It appears however that state feed control agencies seldom check feeds to determine if this standard is exceeded, and no recent analyses of a large number of feed samples are available to indicate if, in fact, the standard is routinely met.

A second question of current interest is the variation in forage fluoride levels in areas where there is no problem of industrial pollution; that is, what should be considered as "normal" forage fluoride concentrations. Most reviews on the fluoride problem in livestock production indicate that normal forages contain less than 10 p.p.m. F, but few extensive or systematic compilations of analyses are available. A series of publications by MacIntire *et al.* (1942, 1947, 1951, 1954), values cited in a review by McClure (1949), and surveys in the Tennessee area (Merriman and Hobbs, 1962; Merriman *et al.*, 1956) indicate that normal fluoride values are probably 5 to 10 p.p.m. for legumes, and about half of this for grasses. Since the time most of these values were obtained, there have been a number of advances in techniques for analyzing biological samples containing low levels of fluorides.

The purpose of this report is to present data indicating the range of fluoride content of dairy feed commercially available at the present time, and to present values for the fluoride content of alfalfa hay obtained from various parts of the country.

PROCEDURE

A total of 168 samples of dairy feed, most of them containing 16% but some 14 to 17% protein, were obtained from the feed control officials of seven states.

As alfalfa is probably the most widely grown of the important forage crops in the country, 107 samples of this forage which were obtained from agronomists in 13 different states were analyzed. Although information on the variety and stage of cutting was available for some samples, the only criteria required of all samples were that they were from a crop that would be accepted as a normal dairy feed and be more than 10 miles from a known industrial source of atmospheric fluoride.

All samples were analyzed on an air-dried basis. From 0.5 to 1.5 grams of alfalfa and from 0.5 to 1.0 gram of the dairy feed samples were weighed into 40-ml. Inconel crucibles and mixed with 100 mg. of calcium oxide and sufficient deionized water to form a loose slurry. The samples were dried on a hot plate and charred under infrared lamps for 1 hour. They were then ashed in a 600° C. muffle furnace for 2 hours and removed. Three grams of NaOH were added and the samples were reheated for 5 minutes. After the melt had cooled, it was suspended in 25 ml. of deionized water. Duplicate standards of from 2.5 to 12.5 μg. of fluoride (as NaF) in the case of the hay samples, or 12.5 to 62.5 μg. in the case of feed samples were added to calcium oxide and carried through the entire procedure. The standards and samples were placed in every other cup of a Technicon sample module II, alternate cups filled with deionized water, and analyses performed in the Technicon AutoAnalyzer essentially as in Mandl's modification (Mandl *et al.*, 1966) of the AutoAnalyzer method described by Weinstein *et al.* in 1965. Each dissolved melt was run through the analyzer two times and the standard curve was run at the start and finish of each series of samples. Duplicate samples of each hay and feed sample were analyzed.

RESULTS AND DISCUSSION

As a check on the accuracy of the method used, a series of forage samples which had previously been analyzed by the conventional Willard and Winter method (1933) were obtained. The comparison of these values with those obtained by the AutoAnalyzer method (Table I) demonstrates that there is excellent agreement between the two methods.

The data shown in Figure 1 indicate that the mean fluoride content of the 107 samples of alfalfa hay was 3.6 p.p.m. and that 50% of the samples contain less than 2.0 p.p.m. fluoride. There does not appear (Table II) to be any difference in the fluoride content of alfalfa from different geographic areas of the country. The small differences in the averages are the result of a small number of high values influencing the mean. Although samples near known industrial sources of fluoride were excluded from the survey, it is of interest that five of the seven samples with over 10 p.p.m. of F were indicated to be from plots that were within 5 miles of a major urban industrial

Department of Biochemistry, University of Wisconsin, Madison, Wis. 53706

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Table I. Comparison of Method of Forage Analyses[a]

Sample No.	Distillation and Titration, p.p.m. F, dry wt. Average	Range	AutoAnalyzer Duplicate Analyses, p.p.m. F, dry wt.	
1	104	98–112	112	118
2	55	50–60	58	62
3	25	23–27	27	26
4	35	32–38	33	32
5	26	21–32	25	23
6	50	48–52	59	57
7	18	15–20	18	19
8	19	15–31	19	17

[a] Each sample of mixed pasture or alfalfa forage was analyzed nine times by the conventional Willard and Winter method in the U.S. Steel Laboratory at Provo, Utah. Duplicate analyses of these samples by the AutoAnalyzer were carried out on different days following the procedure outlined in the procedure section.

Table II. Fluoride Content of Alfalfa Hay

Location	No.	P.P.M. F, Dry Wt. Mean	Median	Range
California	51	4.3	2.2	0.8–32.7
Washington, Oregon	9	5.6	1.7	0.8–36.5
Utah, Montana	8	2.5	2.5	1.5– 3.9
Ala., Ark., Miss.	5	1.3	1.3	0.9– 2.2
Wis., Iowa, Ill.	24	2.5	1.6	0.8– 8.4
New Jersey	3	4.0	4.0	3.5– 4.4
Arizona	7	3.4	3.0	1.3– 7.1
Total	107	3.6	2.0	0.8–36.5

Table III. Fluoride Content of Commercial Dairy Feed

State	No.	P.P.M. F, Dry Wt. Mean	Median	Range
Wisconsin	35	18	12	4– 92
Michigan	15	29	21	3– 95
New York	21	28	13	6–160
California	16	6	7	2– 10
Florida	18	50	20	3–296
Kentucky	57	16	15	4– 43
Arizona	6	7	4	3– 24
Total	168	21	15	3–296

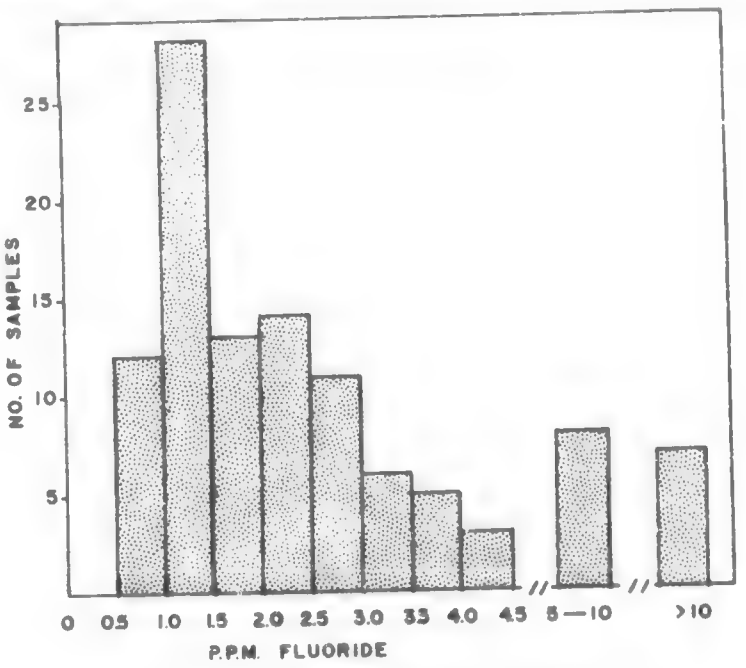

Figure 1. Fluoride content of alfalfa hay

Distribution by fluoride content of 107 samples of alfalfa hay

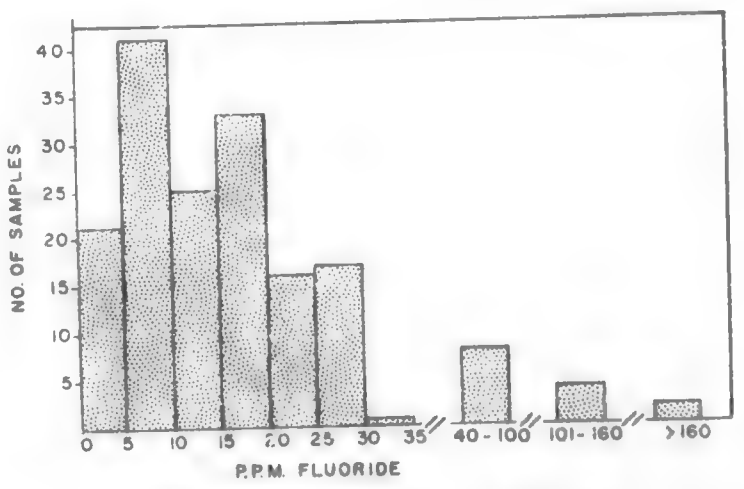

Figure 2. Fluoride content of dairy feed

Distribution by fluoride content of 168 samples of dairy feed containing 16% protein

center. The nine samples that were obtained which were known to be within 5 miles of such urban areas ranged from 2.2 to 32.7 p.p.m. and averaged 10.7 p.p.m. F.

The 168 samples of dairy feed which were collected from seven states were analyzed and the distribution of the results is shown in Figure 2. Only 7% of the samples exceeded the 90 p.p.m. F standard set by the American Feed Control officials and 90% of the samples contained less than 30 p.p.m. F. The state of origin of the different samples is indicated in Table III. All of the samples obtained from California, Kentucky, and Arizona met the 90 p.p.m. F standard, while the other states had at least one sample exceeding this value. The mean fluoride concentration found for samples from different states varied considerably, depending on the number of high samples included, but the median values were rather similar and were all under 25 p.p.m. F.

The analysis of samples by the AutoAnalyzer system represents a considerable saving in time and has been shown (Jacobson *et al.*, 1966) to be similar in precision to the modifications of the Willard and Winter (1933) method which have been used. When those dairy feed samples with a fluoride content of from 10 to 40 p.p.m. were considered, it was found that the deviation in fluoride content of duplicate analyses of the same sample was less than 5% of the mean of the duplicates in 65% of the samples analyzed, and over 10% in only 8% of the samples. This agreement between duplicate samples is better than what we have usually achieved for such analyses with the Willard and Winter method. For the feed samples with a lower fluoride content, or the majority of the hay samples, the deviation expressed as per cent of the mean would be somewhat higher, but would be of little practical importance because of the low concentrations of fluoride involved.

As these samples were obtained as a voluntary response to a request for such material, there has been no attempt to apply any statistical treatment to the data. However, there were sufficient numbers of samples involved to indicate that the values obtained might be rather representative of the fluoride content of the alfalfa hay and dairy feed currently available to the livestock industry.

The fluoride concentrations found for alfalfa hay, with about 75% of the samples containing 3 p.p.m. F or less, may be somewhat lower than that often quoted as a "normal" forage fluoride content. However, it should be noted that these samples were obtained mainly from University Experiment Station plots, and were presumably harvested at the correct stage of maturity. Many samples obtained from

average farming areas might include some mature, overripe forage that would be higher in fluoride content. These data point out that some rather high fluoride forages can be found in areas with no known source of industrial fluoride, making it important to obtain a number of samples in any area where industrial fluoride pollution is suspected.

These data indicate that the vast majority of commercial dairy feed samples do meet the current 90 p.p.m. F standard, and that, in fact, most of them contain less than 30 p.p.m. F. The finding of any samples of commercial dairy feed with over 200 p.p.m. F would, however, suggest that regulatory agencies should be continuously concerned with the possibility of these high fluoride feeds reaching dairy herds. The physical nature of the two samples with over 200 p.p.m. F suggested that they may have contained soft phosphate-colloidal clay as a phosphate source. There are indications that fluoride in soft phosphate may be as available as that in rock phosphate (Ammerman *et al.*, 1964), and if so, inclusion of these high fluoride feeds in a normal ration would certainly exceed the recommended tolerance levels for livestock (Phillips *et al.*, 1960).

Dairy concentrates with a fluoride content of from 40 to 90 p.p.m. meet the current standard and under normal conditions will represent no hazard to the productive ability of dairy cattle. However, some consideration should perhaps be given to the amount of fluoride in commercial feeds in those extremely limited areas of the country where there is fluoride contamination of local forages by industrial sources. State regulatory agencies are now setting air quality standards which define a maximum allowable concentration of fluoride in forages. These standards are based on the assumption that the contribution of fluoride in the dairy concentrate to the total fluoride intake of animals in the area is likely to be small. In such an area, 80 p.p.m. F in a commercial dairy ration, even though it falls within the present legal standard, may be too much. It seems unrealistic to assume that air pollution standards should be written to protect animals against this rare combination of conditions. It may be equally unrealistic for the feed industry to impose a lower nation-wide standard to protect those few herds of cattle in areas where there is a fluoride pollution problem. It would seem more reasonable that the feed industry in cooperation with state air pollution agencies try to ensure that commercial feeds sold in these extremely limited areas contain less than 30 p.p.m. F. As this value was met by about 90% of the feed samples obtained in this study, it should impose no real burden on the manufacturers.

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The assistance of Dale Smith in obtaining the alfalfa hay samples, of Lloyd Transtrum of U.S. Steel in furnishing samples for comparative analyses, the cooperation of the various state feed control officials and individuals who furnished hay samples, and the technical assistance of Kathleen Nelson are greatly appreciated.

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FLUORIDE ACCUMULATION AND GROWTH OF PLANTS EXPOSED TO PARTICULATE CRYOLITE IN THE ATMOSPHERE[1]

D. C. McCune, A. E. Hitchcock, Jay S. Jacobson, and Leonard H. Weinstein

SUMMARY

The effects of air-borne particulate cryolite on the fluoride accumulation and growth of gladiolus, Milo maize, corn, tomato, and alfalfa were studied in a series of experiments using exposure periods of 9 to 49 days and atmospheric fluoride concentrations of 1.1 to 15 μg. F/m³.

Exposure to cryolite resulted in 2- to 50-fold increases in the fluoride level of foliage depending upon the duration of exposure, the atmospheric fluoride level, and the species or variety of plant. Except for a small increase in tip burn over plants exposed to ambient air in gladiolus, exposure to cryolite produced no visible injury and there was no effect of cryolite on growth or yield.

A comparison of the effects of an Alconox-EDTA wash and position in the leaf on tissue fluoride levels in gladiolus exposed to HF and cryolite indicates that the relative inactivity of cryolite results from an inability of the accumulated fluoride to penetrate the leaf in a form that is physiologically effective.

INTRODUCTION

Air-borne fluoride may comprise both gaseous and particulate forms and, therefore, an understanding of its consequence to agriculture must be based on air sampling data that distinguish between the two forms (9) and on a knowledge of the effects of each type of fluoride on plants. Since most of the present knowledge of the effects of atmospheric fluorides on plants is based upon the results of investigations in which HF or other volatile fluorides were used, the following studies were carried out to provide more information on the effects of particulate fluorides.

MATERIALS AND METHODS

PLANT MATERIAL AND EXPERIMENTAL PROCEDURES

Experiments in 1961. Martin's and Hegari varieties of Milo maize (*Sorghum* sp.) and Snow Princess and Elizabeth the Queen varieties of gladiolus (*Gladiolus* sp.) were grown and treated as described in a previous publication (5).

Experiments in 1962. Ranger alfalfa (*Medicago sativa* L.) was seeded in soil in December of 1961 in 8-inch plastic pots and maintained in the greenhouse for three months, then in outside frames for five months. The alfalfa was cropped 3 inches above the surface of the soil two months before the start of the experiment. Each pot supported an undetermined number of plants. Marcross sweet corn (*Zea mays* L.) was planted in soil in 8-inch plastic pots three months before the start of the experiment and maintained in outside frames. The corn was thinned to three plants per pot during the first month. Snow Princess gladiolus were planted in soil in 8-inch plastic pots, four No. 1 corms to a pot, two months before the start of the experiment and maintained in outside frames.

Plants were selected for uniformity and placed in four fumigation chambers. In each fumigation chamber 16 pots of alfalfa, 16 pots of gladiolus, and 12 pots of corn were arranged in parallel rows with two rows of each species. Plants were exposed to particulate cryolite in two chambers and ambient air in the other two chambers. The corn plants were removed from the chambers after a period of 25 days. The distal

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halves of the leaves at the ear node and the nodes immediately above and below were taken for fluoride analysis. The tissue from three pots (a total of nine plants) was pooled and constituted a sample.

After a period of 46 days, the pots containing alfalfa were removed from the chambers, the plants were cut about 2 inches above the level of the soil in the pot, and the tissue was dried and taken for fluoride analysis. Each pot constituted a separate sample.

After a period of 42 days, the gladiolus were removed from the chamber and the foliage harvested for fluoride analysis by the following procedure. Two equivalent lots of plants were obtained from each group of four pots, and in each lot of plants the top 8 inches of leaves was removed and divided into upper and lower 4-inch portions. The tissue from one lot was dried immediately and taken for fluoride analysis. The tissue from the other lot was washed first and then dried, before analysis.

The leaf material to be washed was placed in a container of plastic screen and moved up and down three times in a beaker containing 4 liters of 0.05 per cent Alconox and 0.05 per cent tetrasodium ethylenediamine tetraacetate (EDTA) solution. The tissue and plastic container were rinsed for 30 seconds with running tap water and then immersed three times in each of two successive beakers containing 4 liters of deionized water. The deionized water was changed periodically. On the day following the harvest of the first set of gladiolus, a second set of gladiolus was placed in the chambers. These plants were then removed after 10 days and harvested by the above procedure. In both sets of gladiolus the amount of tip burn on the first five leaves was measured in three plants in each pot one day before the plants were harvested.

Experiments in 1963. Bonny Best tomato (*Lycopersicon esculentum* Mill.) plants were grown in the greenhouse for four and six weeks in soil in 4-inch clay pots, one plant per pot, and then transferred to four fumigation chambers to give 48 plants in each chamber. In two of the chambers, plants were exposed to particulate cryolite during the 17 days of the experiment. Plants in the third chamber were exposed to HF for the first eight days of the experiment. Plants in the fourth chamber were exposed to ambient air and served as controls. All the pots were placed in saucers, and the plants were watered from the bottom. After 17 days the plants were removed from the chambers and the leaf tissue removed. Two equivalent lots of tissue were obtained in each replicate group of six plants by halving the leaf tissue from each plant. One lot was dried directly and the other was washed by the above procedure and then dried for subsequent fluoride analysis.

Two experiments were carried out using gladiolus of the varieties Snow Princess and Rose Spire. Corms (No. 1 size) were planted in soil, four corms per 8-inch plastic pot, three months before each experiment, and the plants were grown in outside frames. In the first experiment, 32 pots of each variety were arranged in a lattice design within each chamber. The plants in two of the chambers were exposed to HF for a three-day period that began one week after the plants were placed in the chambers. The plants in two other chambers were exposed to particulate cryolite for a 40-day period. The plants in the two remaining chambers served as controls. After six weeks in the chambers, the plants were harvested and the foliage taken for fluoride analysis by the procedure described above for gladiolus in 1962.

In the second experiment, 36 pots of Snow Princess gladiolus were placed in each of three chambers, and 48 pots of Rose Spire gladiolus were placed in each of three other chambers. Over a seven-week period, each variety was exposed to HF, to particulate cryolite, or to filtered air. At the end of the period the plants were harvested and the foliage taken for fluoride analysis. In both experiments care was taken to avoid disturbing the foliage when the plants were watered.

GAS AND PARTICULATE INJECTION PROCEDURES

Plastic-covered quonset-type fumigation chambers described in an earlier publication (5) were used in all experiments. In 1962 and 1963 the particulate injector was placed in the chamber over the center of the area occupied by the plants. The injector itself consisted of a 2.5 by 15 cm. glass cylinder with a sintered glass plate at the bottom. A 20-gram sample of particulate cryolite was placed in the cylinder. Compressed air passed through a glass wool filter and then through a silica gel drying tube and entered the cylinder below the sintered glass plate at the rate of 4.0 cubic feet per hour.

The suspended cryolite passed from the injector through a 2-mm. diameter glass tube 15 cm. long, and, as it emerged from this tube, it was mixed with a stream of compressed air and carried out into the chamber through bifurcating glass tubes 6 mm. in diameter. The discharge outlets were about 5 feet above ground level and about 45° from the vertical. Each of the four outlets was directed toward a quadrant of the chamber. In 1961 the injector was maintained outside the chamber, and the cryolite-laden air was passed into the chamber through a Tygon tube 4 mm. in diameter. This tube outlet was located in the center of the chamber about 6 feet above the ground. All glass surfaces of the injector were treated with Siliclad (a water soluble silicone concentrate manufactured by Clay-Adams, Inc., New York, N. Y.) to reduce adhesion of the cryolite to the glass. One end of a 2-inch glass rod was attached to the injector with rubber tubing, and the free end was placed against a hexagonal nut turned by an electric stirring motor. The vibration of the cylinder thus produced, prevented channeling, reduced adhesion, and promoted a more uniform and continuous dispersion of the cryolite. The particulate injectors were obtained through the courtesy of Mr. Lloyd G. Transtrum, Agricultural Division, Geneva Works, Columbia-Geneva Steel Division, United States Steel Corporation, Provo, Utah.

At intervals of 10 to 15 days, the cryolite remaining in the injector was weighed, and enough cryolite was added to replace the amount dispensed. Powdered natural Greenland cryolite was obtained from Harshaw Chemical Co. (Hastings-on-Hudson, N. Y.) and ground by a micronizing process by the Corona Chemical Division of the Pittsburgh Plate Glass Co. of Moorestown, N. J. Microscopic analyses showed the particle size to be 2 to 4 μ, and by the Fisher Sub-Sieve Sizer an average particle size of 1.5 μ was found. The cryolite was oven dried at 100° C. for 24 hours before being used.

Hydrogen fluoride injection was carried out by the following procedure. Compressed air passed successively through a Dwyer Flow-meter, a 1-liter polyethylene bottle containing 600 ml. of deionized water, a 1-liter polyethylene bottle containing 700 ml. of a solution of HF (Mallinckrodt Chemical), and 2 feet of Tygon tubing into the air intake of the fumigation chambers at a point 2 feet before the fan. The air stream was dispersed in the deionized water and HF solution by filter candles of linear porous polyethylene (Porex Materials Corp., Fairburn, Ga.). The bottles containing the deionized water and HF solution were placed in an insulated chest which contained an ice-water mixture. Ice was added periodically to maintain the mixture. The amount of HF dispensed was determined by the rate of air flow through the injector and the concentration of the HF solution. At flow rates of 0.5 to 10.0 cubic feet per hour and concentrations from 4 to 12 per cent HF w/w, the injection apparatus continuously dispensed reproducible and uniform amounts of HF.

ANALYTICAL PROCEDURES

Plant tissue samples were analyzed for fluorine by an adaptation of the Willard and Winter method (8) in 1961 and 1962 and by the semi-automated method (14) in 1963. Air analyses in

chambers used for particulate cryolite treatments were carried out by the use of Greenburg-Smith impingers. An impinger was placed in each quadrant of the chamber area occupied by the plants. The air in the chambers was sampled continuously at a rate of 200 cubic feet per day about 3 feet above floor level. The contents of the impingers were analyzed for fluorine by the Willard and Winter adaptation (8) in 1961 and 1962 and by the semi-automated method (14) in 1963. In chambers used for ambient air controls or for HF fumigation, air was sampled in the northeast corner as it entered the chamber by means of a conical absorber. The fluorine content of these absorbers was determined by direct titration with thorium nitrate in 1961 and 1962 and by the semi-automated method in 1963.

COMPARISON OF PARTICULATE SODIUM FLUORIDE, CALCIUM FLUORIDE, AND CRYOLITE

Six-week-old Bonny Best tomato plants in soil in 4-inch clay pots, one plant per pot, were exposed to known amounts of micronized sodium fluoride, calcium fluoride, or cryolite in a vacuum bell jar duster [described by McCallan (7)]. After treatment, the plants were placed in the greenhouse for two days and then harvested, dried, and used for fluoride analysis by the Willard-Winter method (8). Duplicate experiments were carried out.

RESULTS

Experiments in 1961. Milo maize foliage accumulated 67 ppm. F when plants were exposed to cryolite at a mean level of 1.43 μg. F/m³ for 25 days. This was 19 times as much as the 3.5 ppm. in control plants exposed to filtered air for the same period. A deionized water wash removed about 40 per cent of the accumulated fluoride from plants exposed to cryolite but did not affect the fluoride content of the controls. There was no difference between Hegari and Martin's varieties in fluoride accumulation. No visible marking was produced by the cryolite.

Gladiolus foliage also showed an increased amount of fluoride as a result of exposure to cryolite, although the increase was not so great as in Milo maize and depended upon the gladiolus variety. Four-inch leaf tips from plants exposed to cryolite showed that the variety Snow Princess had 6.8 ppm. and Elizabeth the Queen had 13.4 ppm. of fluoride; 4-inch tips from control plants had 3.2 ppm. There was no effect of a deionized water wash on the fluoride content of the tissue (Table 1).

The amount of tip burn on the gladiolus was increased over the control by exposure to cryolite but varied with the variety and position of the leaf. In Snow Princess, the effect of cryolite was present in all of the first four leaves and greatest in the third leaf, an increase of 7.0 mm. for the third leaf. In Elizabeth the Queen the effect was evident in only three of the leaves, the first, third, and fourth, and not as great as in Snow Princess, 4.8 mm. in the third leaf. In control and cryolite treated plants, Snow Princess showed a greater amount of tip burn than Elizabeth the Queen (Table 2).

Experiments in 1962. Foliage from Marcross corn plants exposed to 3.1 and 4.6 μg. F/m³ as cryolite for 25 days accumulated 172 and 210 ppm. F., respectively, a 6- to 7-fold increase over the 33 ppm. of foliage from control plants (Table 3). The fluoride accumulation of Ranger alfalfa foliage was 192 and 385 ppm. in plants exposed for 46 days to 2.4 and 4.5 μg. F/m³, respectively, a 20- to 40-fold increase over the 9.3 ppm. in the control plants (Table 4).

The effect of exposure to cryolite, an Alconox-EDTA wash, and position in the leaf on the fluoride level of Snow Princess gladiolus tissue is seen in Table 5. In control plants the tip 4 inches had 10.3 ppm. of F which was about twice that of the next 4 inches, 4.5 ppm. Washing did not remove appreciable amounts of this fluoride. In plants exposed to cryolite at 4.3 μg. F/m³ for 10 days, the fluoride concentrations of tip and subjacent 4-inch

Table 1.—Effect of a 25-day exposure to atmospheric cryolite, washing of foliage, and variety on the fluoride level of 4-inch leaf tips of gladiolus

Gladiolus variety	Treatment		Fluoride level of gladiolus 4-inch leaf tips, ppm.†	
	Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	Unwashed	Washed
Snow Princess	Ambient air (control)	0.023	3.0	1.9
Elizabeth the Queen			3.4	2.2
Snow Princess	Cryolite	1.43	6.8	8.6
Elizabeth the Queen			13.4*	14.8*

* Significantly different from Snow Princess in same treatment (5 per cent level).
† Each value is the mean of 8 samples.

Table 2.—Effect of a 25-day exposure to atmospheric cryolite and position of leaf on plant on tip burn of two varieties of gladiolus

Gladiolus variety	Treatment		Amount of tip burn, mm.†			
	Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	Leaf position from the base*			
			1	2	3	4
Elizabeth the Queen	Ambient air (control)	0.023	0.3[a]	3.0[a]	4.3[a]	1.1[a]
Snow Princess			1.4[ab]	6.5[b]	6.5[b]	3.0[b]
Elizabeth the Queen	Cryolite	1.43	1.7[bc]	4.9[a]	0.1[c]	3.4[b]
Snow Princess			2.9[c]	9.1[c]	13.5[d]	6.5[c]

* In each column, two means not followed by the same letter are significantly different (5 per cent level).
† Each value is the mean of 48 plants.

Table 3.—Effect of a 25-day exposure to atmospheric cryolite on the fluoride accumulation of Marcross corn foliage

Treatment		Fluoride, ppm.†
Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	
Ambient air (control)	0.19	31.1
	—	34.7
Cryolite	3.1	172.0
	4.6	210.0

† Each value is the mean of 4 samples consisting of the distal halves of leaves at the ear node and nodes immediately above and below the ear.

Table 4.—Effect of a 46-day exposure to atmospheric cryolite on the fluoride level and dry weight of Ranger alfalfa

Treatment		Fluoride level of alfalfa, ppm.†	Dry weight of alfalfa, g. per pot*.†
Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³		
Ambient air (control)	0.13	7.1	27.1
	—	11.5	27.7
Cryolite	2.4	192.0	24.1
	4.5	385.0	24.7

* Required significant difference (5 per cent level) between control and cryolite, 5.4.
† Each value is the mean of 16 samples.

TABLE 5.—Effect of washing and position of tissue in the leaf on fluoride level in Snow Princess gladiolus after exposure to atmospheric cryolite

Treatment		Fluoride level of gladiolus tissue, ppm.†	
		From foliage	
Type of atmospheric fluoride	Mean F level of atmosphere, $\mu g./m^3$	Position of 4" samples	Unwashed / Washed
Ambient air (control)	0.12	Tip	10.0 / 10.5
		Subjacent	5.0** / 3.0**
Cryolite (10-day exposure)	4.3	Tip	21.4 / 13.7*
		Subjacent	17.2 / 5.4*,**
Cryolite (42-day exposure)	3.8	Tip	93.4 / 29.0*
		Subjacent	110.1 / 30.0*

* Significantly different from unwashed foliage (5 per cent level).
** Significantly different from tip 4 inches of leaf (5 per cent level).
† Each value is the mean of 8 samples for plants exposed to cryolite. In plants exposed to ambient air, values from 42- and 10-day exposures were pooled and each value is the mean of 16 samples.

portions of the leaf, 21.4 and 17.2 ppm., respectively, represented an increase of about 11 to 13 ppm. over the same tissue in the controls and a decrease in the relative fluoride concentration of the tip. Washing reduced the fluoride content of each portion to about that of the control tissue. The fluoride concentrations of tip and subjacent 4-inch portions in plants exposed to cryolite at 3.8 $\mu g.$ F/m^3 for 42 days were 94 and 110 ppm., respectively, representing an increase of 85 to 105 ppm. over the controls. The Alconox-EDTA wash removed 75 per cent of the accumulated fluoride and the fluoride contents of both portions of the leaf remained greater than in the controls. In both washed and unwashed foliage, the fluoride concentration of the tip was not significantly different from that of the subjacent tissue.

There were no visible effects on the corn or alfalfa as a result of exposure to cryolite. The dry weight of the alfalfa was not affected by cryolite (Table 4). The amount of tip burn on gladiolus was not affected by the nine-day exposure to cryolite, but the 41-day exposure to cryolite resulted in an increase of about 4 mm. of tip burn on the third and fifth leaves (Table 6).

Experiments in 1963. The Alconox-EDTA wash removed about 75 per cent of the accumulated fluoride from the foliage of Bonny Best tomato plants exposed to cryolite, but had no significant effect on the fluoride content of foliage from plants exposed to HF. The abnormally high fluoride levels found in analyses of foliage and air from the control chamber indicate that during the course of the experiment the plants were exposed to some fluoride-containing material, probably dust dislodged from the filter since over 85 per cent of the fluoride was removed by the wash (Table 7).

In two experiments the effects of the Alconox-EDTA wash and position in the leaf on the fluoride level of gladiolus tissue were determined in plants exposed to filtered air, gaseous HF, or particulate cryolite. Rose Spire and Snow Princess varieties were placed in the same chambers in the first experiment (Table 8) and in separate chambers in the second (Table 9). There were no significant differences between varieties with respect to the effect of any factor. Plants exposed to filtered air had three to four times as much fluoride

TABLE 6.—Effect of exposure to atmospheric cryolite and position of leaf on plant on tip burn in Snow Princess gladiolus

Treatment			Tip burn, mm.†				
			Leaf position from base				
Duration of experiment, days	Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	1	2	3	4	5
41	Ambient air (control)	0.13	13.4	20.4	19.6	22.1	21.3
	Cryolite	3.8	13.7	19.1	23.7*	23.5	24.6*
9	Ambient air (control)	0.11	16.8	22.6	21.0	22.6	25.1
	Cryolite	4.3	14.3	21.5	21.1	23.1	25.9

* Significantly different from control (5 per cent level).
† Each value is the mean of 96 plants.

in the top 4 inches as in the subjacent 4-inch sector. The fluoride content of either portion was not affected by washing. In plants exposed to cryolite, the fluoride concentration of the tip, relative to that of the subjacent tissue, decreased with an increase in the amount of fluoride accumulated. The Alconox-EDTA wash lowered the fluoride content of both portions, and the amount of fluoride removed varied directly with the amount accumulated by the tissue. In plants exposed to HF, the relative fluoride concentration of the tip increased with an increase in the amount of fluoride accumulated. The fluoride content was not affected by washing.

There was no visible increase in the amount of tip burn in plants exposed to cryolite and showing 30 to 46 ppm. F. In plants exposed to HF, there were increases of about 6 mm., 25 mm., and 75 mm. of tip burn associated with 15, 26, and 110 ppm. F, respectively.

The corms derived from plants used in the second experiment were harvested, counted, and weighed according to size. There was no effect of exposure to atmospheric fluoride on the corm yield of Snow Princess gladiolus. There was no effect of atmospheric fluoride on the number or weight of No. 1 or No. 2 corms of Rose Spire, but exposure to HF resulted in increased weight of No. 3 corms, and exposure to cryolite in a reduced number of No. 3 corms. Since the total number of corms was not affected, this decrease in No. 3 corms may be a reflection of the increased number of No. 1 corms (Table 10).

COMPARISON OF PARTICULATE SODIUM FLUORIDE, CALCIUM FLUORIDE, AND CRYOLITE

A gross comparison of the effects of different fluoride compounds was obtained with the vacuum bell jar duster (Table 11). High amounts of fluoride, 30 to 40 mg. per plant, did not affect Bonny Best tomato plants when cryolite or calcium fluoride was used but resulted in marked injury when sodium fluoride was used.

TABLE 7. Effect of washing on the fluoride level of Bonny Best tomato foliage exposed to atmospheric cryolite for 17 days or hydrogen fluoride for 8 days

Treatment		Fluoride level of foliage, ppm.†	
Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	Unwashed	Washed
Ambient air (control)	2.8	15.0	6.2*
HF	0.8	60.8	47.4
Cryolite	13.9	91.0	37.1*
Cryolite	44.7	423.0	100.0*

* Significantly different from unwashed foliage (5 per cent level).
† Each value is the mean of 8 samples.

TABLE 8.—Effect of washing and position of tissue in the leaf on fluoride level in gladiolus after exposure to atmospheric cryolite for 40 days or hydrogen fluoride for 3 days

Treatment			Fluoride level of gladiolus tissue, ppm.†	
			From foliage	
Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	Position of 4" samples	Unwashed	Washed
Ambient air (control)		Tip	16.1	16.2
		Subjacent	5.6**	5.3**
		Tip	19.5	17.0
		Subjacent	5.1**	4.1**
HF	1.01	Tip	27.8	26.4
		Subjacent	4.9**	4.7**
	4.45	Tip	110.0	108.4
		Subjacent	13.5**	13.0**
Cryolite	1.77	Tip	44.3	34.1*
		Subjacent	19.5**	9.7*,**
	2.00	Tip	70.5	46.2*
		Subjacent	45.4**	27.5*,**

* Significantly different from unwashed tissue (5 per cent level).
** Significantly different from tip 4 inches (5 per cent level).
† Each value is the mean of 16 samples.

DISCUSSION

The accumulation of fluoride by foliage is related to the duration of exposure and atmospheric fluoride level if plants are exposed to HF (1). The experiments reported here indicate this is also true if plants are exposed to cryolite. Since the amount of fluoride accumulated from atmospheric HF or cryolite is also dependent upon the variety or species of plant, certain characteristics of the plant itself will

TABLE 9.—Effect of washing and position of tissue in the leaf on fluoride level of Snow Princess and Rose Spire gladiolus after a 7-week exposure to atmospheric cryolite or hydrogen fluoride

Gladiolus variety	Treatment		Fluoride level of gladiolus tissue, ppm.†		
				From foliage	
	Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	Position of 4" samples	Unwashed	Washed
Snow Princess	Ambient air (control)	0.071	Tip	13.0	11.4
			Subjacent	3.2**	2.3**
	HF	0.25	Tip	10.7	14.6
			Subjacent	4.0**	1.6**
	Cryolite	1.19	Tip	24.0	20.4*
			Subjacent	6.8**	5.9**
Rose Spire	Ambient air (control)	0.078	Tip	15.7	13.5
			Subjacent	5.3**	4.9**
	HF	0.25	Tip	30.8	30.5
			Subjacent	5.7**	3.1**
	Cryolite	1.97	Tip	33.2	26.5*
			Subjacent	15.8**	11.9*,**

* Significantly different from unwashed tissue (5 per cent level).
** Significantly different from tip 4 inches (5 per cent level).
† Each value is the mean of 9 samples for Snow Princess and 12 samples for Rose Spire.

Table 10.—Effect of a 7-week exposure to atmospheric cryolite or hydrogen fluoride on the corm yield of Snow Princess and Rose Spire gladiolus

Gladiolus variety	Treatment		Corm yield†						Total No. corms per pot
			Size of corms						
			No. 1		No. 2		No. 3		
	Type of atmospheric fluoride	Mean F level of atmosphere, μg./m³	No.†† corms per pot	Mean corm weight, g./corm	No. corms per pot	Mean corm weight, g./corm	No. corms per pot	Mean corm weight, g./corm	
Snow Princess	Ambient air (control)	0.071	10.0	22.8	7.6	16.9	3.1	10.8	21.6
	HF	0.25	13.3	22.7	5.4	15.9	2.8	9.6	21.6
	Cryolite	1.10	12.0	24.3	7.2	16.2	2.9	9.8	22.1
Rose Spire	Ambient air (control)	0.078	9.0	26.2	5.4	15.7	3.8	9.8	18.3
	HF	0.25	9.0	26.3	5.7	16.9	3.0	11.0*	17.6
	Cryolite	1.07	10.4	27.1	5.3	16.2	1.9*	9.5	17.6

* Significantly different from control (5 per cent level).
† Each value is the mean of 36 pots for Snow Princess and 48 pots for Rose Spire.
†† Four No. 1 corms were planted in each pot.

also determine fluoride accumulation although one set of factors may be operative for gaseous and another set for particulate fluorides. The greater fluoride accumulation by Elizabeth the Queen, compared to Snow Princess, upon exposure to HF (4) or cryolite suggests that in gladiolus the same characteristics may affect fluoride accumulation from both types of materials. It should be noted that since care was taken to avoid undue handling of the foliage and the plants were not subject to weathering, the fluoride accumulation found in these experiments is probably much greater than what would have been obtained in plants exposed to the same amounts of fluoride and maintained in the field.

Clearly, plants can tolerate far more fluoride as cryolite than as HF. Except for a small increase in tip burn of gladiolus, there were no visible effects on plants exposed to cryolite under the atmospheric concentrations and exposure periods employed. Growth and yield of plants were normal. In Snow Princess gladiolus, Pack *et al.* (9) found no measurable effect of particulate fluorides although HF, at less than half the concentration of particulate, produced necrosis of 15 per cent of the leaf area. In Snow Princess gladiolus exposed to cryolite in 1962, an increase of 4 mm. of tip burn was associated with 94 ppm. F in unwashed tissue and 29 ppm. F in washed tissue. According to data obtained previously (4), about 250 mm. or 70 mm. of tip burn would be associated with 94 ppm. or 29 ppm.

Table 11.—Effect of particulate sodium fluoride, calcium fluoride, and cryolite on Bonny Best tomato

Material	Amount applied, g.	F accumulation, mg./plant	Symptoms found
Sodium fluoride	1.00	29.4	Severe necrosis of mature leaves, epinasty of petiole and midrib
	0.10	6.0	Necrosis of margins and tips of leaflets
Calcium fluoride	1.00	42.2	None
	0.10	8.0	None
Cryolite	1.00	38.2	None

F, respectively, if these fluoride accumulations had resulted from exposure to HF. When cryolite and HF treatments resulted in comparable tissue fluoride levels in 1963, visible increases in tip burn were found only in plants exposed to HF.

The second experiment in 1963 probably represents a better comparison of HF and cryolite since the plants were exposed to both forms for the same period of time. Adams *et al.* (1) found that foliar response was related to the frequency and duration of exposure to HF as well as to the tissue fluoride level. The lack of an effect of cryolite on corm yield of gladiolus in 1963 could have been predicted since cryolite produced no visible increase in tip burn and previous work with HF has shown that tip burn must exceed 100 to 140 mm. before corm yield is affected in Snow Princess (4).

Pack *et al.* (9) found that a detergent wash removed only 20 per cent of the fluoride from alfalfa foliage exposed to HF but removed all the fluoride accumulated by exposure to particulate fluoride. From this they suggested that a possible explanation for the inactivity of particulate fluoride would be that only a small amount of the accumulated fluoride penetrates the leaf. In a comparison of different methods for the removal of surface materials from apple leaves, Taylor (12) found that a detergent-EDTA solution did not leach internal elements from leaves, and, although it was one of the most effective procedures, it did not result in the complete removal of surface contaminants. Thus, a reasonable conclusion is the fluoride remaining in washed tissue constitutes both internal and external fluoride, and what is removed by washing represents a minimum estimate of external fluoride. Since the Alconox-EDTA wash removed up to 70 per cent of the fluoride accumulated by tomato and gladiolus foliage exposed to cryolite and did not affect the fluoride accumulated by foliage exposed to HF, a larger proportion of the fluoride from cryolite must remain on the exterior of the leaf than when accumulated from HF. Brewer *et al.* (3) compared the sorption of fluoride by citrus leaves from aqueous solutions of different inorganic fluorides and concluded that sorption was related to ion size. A comparison of equivalent amounts of particulate fluoride as sodium fluoride, calcium fluoride, or cryolite showed that the effect of a fluoride is dependent upon its water solubility. Thus, one would also expect greater penetration of fluoride as HF than as cryolite on the basis of the chemical properties of each compound.

Another possibility is that only a portion of the internal fluoride derived from cryolite is in a physiologically-active form. According to Thomas (13), when gladiolus is exposed to HF, fluoride is absorbed over the entire leaf and translocated to the tip, and tip burn occurs if the fluoride level of this tissue exceeds a critical value. In many species fluoride symptoms are manifested as chlorosis or necrosis of the tip and margin of the leaf (11, 15), and the translocation of absorbed fluoride to the tips and margins of leaves has been found through the use of $H^{18}F$ and autoradiography (6) or by fluoride analysis (15). Thus, an estimate of physiologically-active fluoride is obtained from the amount translocated as well as from the amount of injury observed.

In gladiolus, the difference in fluoride concentration between tip and subjacent 4-inch sections of the leaf indicates that much less fluoride is translocated to the tip when plants are exposed to cryolite. Since the washing procedure may not remove all external fluoride, it is not possible to determine what portion of the internal fluoride is translocated or physiologically active, but the minor amount of tip burn also indicates that it is rather small in the case of cryolite.

The results presented above support the contentions of others (9) that in assessing the importance of air analyses to probable effects on vegetation, a

distinction should be made as to the form of fluoride in the air. For analyses of atmospheric fluoride to be relevant to probable effects of fluorides on vegetation, a distinction should be made between particulate and gaseous forms of fluoride since the latter is much more likely to affect the plant. These results also indicate that tissue fluoride levels should be evaluated with respect to the amount of fluoride actually in a position and form to affect the plant. Pilet (10) has pointed out that internal fluoride levels are the only meaningful indices of possible physiological effects. It is necessary to distinguish between external and internal fluoride if any tissue analysis is to be relevant to a determination of possible physiological effects. This is true not only when plants are exposed to different types of atmospheric fluoride, but also when only HF may be present. It has been shown that calcium salts on leaf surfaces will form inactive fluoride compounds and decrease the effects of HF by decreasing the amount which penetrates the plant (2). Therefore, it is important to determine by one criterion or another what amount of accumulated fluoride may be of concern. If this is not done, results based on tissue analyses may not be physiologically meaningful where fluorides may originate from dust, atmospheric particulates, or salts formed on the leaf surface.

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RADFORD COLLEGE
RADFORD, VIRGINIA 24141

OFFICE OF THE VICE PRESIDENT
FOR ACADEMIC AFFAIRS

TELEPHONE (703) 731-5404

July 19, 1974

Mr. Ian R. Macdonald
AMAX Pacific Aluminum Corporation
Suite 250
1600 South Fourth
Portland, Oregon 97201

Dear Mr. Macdonald:

I have reviewed both the 8 November, 1973 and the 12 July, 1974 reports by Dr. H. E. Cramer prepared for AMAX Pacific Aluminum Corporation concerning the calculated impact on ambient air quality of emissions from the proposed AMAX Aluminum plant at Warrenton, Oregon.

In my professional judgement, based on the experience I have had studying the effects of fluoride on estuarine organisms (oysters and blue crabs), the calculated levels of fluoride emissions will have no measurable effect on the quality or quantity of estuarine and marine organisms in the waters of the Columbia River or the Pacific Ocean near the aluminum plant site.

It is my belief that the relatively small concentrations of both particulate and gaseous fluorides calculated to be emitted throughout the year will be insignificant and will not affect these organisms in any way.

If I can be of any further help in clarifying any of the above statements or providing additional information, please do not hesitate to call on me.

Sincerely,

David J. Moore

David J. Moore
Vice President for
Academic Affairs and
Professor of Biology

DJM:al

Attachment

1979 S. Unit, Astoria - 8949
Camp Rilea Sec. 101
AMAX Co. E.I.A. #1

ENVIRONMENTAL IMPACT ASSESSMENT
ALUMINUM REDUCTION PLANT

WARRENTON, OREGON

SEPTEMBER, 1974

AMAX PACIFIC ALUMINUM CORPORATION

ENVIRONMENTAL IMPACT ASSESSMENT
ALUMINUM REDUCTION PLANT
WARRENTON, OREGON

TABLE OF CONTENTS

SUMMARY. . . . . I.

INTRODUCTION AND PERSPECTIVE . . . . . II.

PROJECT BACKGROUND . . . . . III.

PHYSICAL PROJECT . . . . . IV.

EXISTING ENVIRONMENTAL SETTING . . . . . V.

IMPACT ANALYSIS PROCEDURE. . . . . VI.

IMPACTS - CONSTRUCTION PERIOD. . . . . VII.

IMPACTS - OPERATING PERIOD . . . . . VIII.

RELATED IMPACTS - PORT . . . . . IX.

UNAVOIDABLE EFFECTS. . . . . X.

ALTERNATIVES . . . . . XI.

SHORT-TERM/LONG-TERM PRODUCTIVITY. . . . . XII.

IRREVERSIBLE COMMITMENTS . . . . . XIII.

CONSULTATION AND CITIZEN PARTICIPATION . . . . . XIV.

I

I. SUMMARY

The proposed action is the construction and operation of a primary aluminum reduction plant at Warrenton, Oregon. The site, previously partially cleared and rough-graded, was purchased in September 1970. This site has been zoned heavy-industrial since 1965.

The proposed plant will have an annual capacity of 187,300 S.T. of aluminum ingot. A contract for electrical energy with the Bonneville Power Administration to serve the plant was assigned to Amax in September 1970.

The construction of alumina unloading and storage facilities at the Port of Astoria constitutes a separate action.

Summary of Environmental Impacts (beneficial and adverse)

- Amax property, 726 acres, was not in commercial use when acquired in 1970. Approximately 80 acres of terrestrial habitat will be lost, and used for the plant facility. An additional 80 acres will be committed to a retention pond and landscape planting. The balance of the acreage will be left in its natural state.

- The plant will be visually screened by the natural coniferous buffer. Long range views from area hills are possible.

- The plant will not affect local climate.

- The plant will be a new noise source in the area. Noise control technology will be applied.

- There will be no discharge of process water from the plant site. No liquid effluent from plant process operations will reach a watershed.

- Sanitary discharge from the plant will be conveyed to the City of Warrenton sewer system. Increase in load on the Warrenton sewer system from the

plant and residential expansion falls within the capacity of the system.

- Storm water at the plant will be collected at a retention pond. Potential fluoride content of any overflow, occurring only during period of heavy or continuous rainfall will not jeopardize environmental values.

- Airborne emissions from the plant in gaseous and particulate form will be within regulatory standards established by the State of Oregon.

- Airborne emissions from the plant will not have any significant effect on the terrestrial or marine environment.

- The construction of the plant will provide employment, (1800-1900 people at the peak in midsummer 1976), and economic benefit to Clatsop County.

- During the construction period (Spring of 1975 to fall of 1977) additional accommodation units will be required for construction workers. Present school facilities will be adequate. Local governments will be tasked with the accommodation shortage and demand for additional utility and community services.

- Plant employment will be 777 employees. Secondary employment is estimated at 446, a total of 1,223 new jobs.

- It is estimated that this employment opportunity in Clatsop County will require an in-migration of employees over the period 1977 to 1980. This represents an estimated population increase of 1,600-1,900 people over this period.

- The in-migration of employees will create a demand for approximately 500-600 housing units over the period 1977-1980.

- The demand for new housing should force implementation of a well balanced land use program in Clatsop County.

- School facilities may be adequate for the increased enrollment. Should necessary expansions or upgrading be necessary, increased tax revenues should offset expenditures.

- Other community facilities, health care, safety and security, cultural and recreational facilities, are considered adequate for population increase.

- The plant will purchase water from the City of Warrenton. Increased capability of the Warrenton water system is necessary to guarantee adequate supply for the plant and residential growth. The cost of this improvement will not be borne by the taxpayers of the City of Warrenton.

- The population increase in Clatsop County may overload water and sewer systems in some communities and necessitate their upgrading.

- Employee traffic, to and from the plant, may cause traffic congestion. The realignment of Highway 101, with an acceptable interchange at the plant egress will alleviate potential congestion.

- Should Amax transport alumina to the plant site by truck, increase in truck traffic could create minor traffic disruptions.

- Up to two railroad trains per day to the plant site will have some effect on traffic flow at the eastern approach to the Youngs Bay causeway and bridge.

- If Amax is able to locate the railroad spur to the plant at the northeast corner of the site, plant rail traffic will not pass through downtown Warrenton.

- The electrical energy consumption at the proposed Amax Warrenton plant will have no adverse effect on local electrical supply in the county.

- The Amax contract with the Bonneville Power Administration does not necessitate the planning of

further nuclear or fossil fired generating capacity in the Pacific Northwest.

- The economic impact of this plant, in terms of increased individual purchasing power, increased purchases of goods and services, and increased taxation revenues, will provide an improved economic base in the County for housing, services and supportive business expansion.

- Planning for residential and commercial growth will challenge local and County governments.

II

II. INTRODUCTION AND PERSPECTIVE

In March of 1973 Amax Pacific Aluminum Corporation, (Amax), assembled a team in Portland, Oregon, to commence the planning for a primary aluminum reduction plant to be located at Warrenton, Oregon.

The Amax team in Portland comprised the following: All Amax Pacific Aluminum Corporation personnel permanently assigned to the Warrenton project, engineering and administrative personnel from the Intalco Aluminum Corporation loaned to Amax for the project, staff personnel and consultants associated with the AMAX Environmental Services Group from Denver, Colorado.

The AMAX Environmental Services Group had been assigned the responsibility for the planning, preparation, and documentation necessary for the submission of permit applications for the proposed plant to the appropriate state and federal agencies. It was also responsible for identifying the environmental impacts of the proposed plant, and for recommending measures to mitigate negative impacts.

The AMAX Environmental Services Group utilizes a systmatic approach to impact analysis. This system involves development of a complete description of a given industrial proposal, identification of environmental resources, and a multi-disciplinary approach to the identification and assessment of impacts of the proposed action upon the identified resources. The results of this data gathering and analysis are usually summarized in an "Environmental Assessment Report."

AMAX prepares environmental assessment reports for its own use, and to meet the need for impact information where it is required by the National Environmental Policy Act or by state environmental laws. AMAX has found such assessments are valuable even in cases where they are not required by law. Such an assessment identifies problem areas at an early time, permitting design of avoidance or mitigation measures at an early time in the planning for a particular facility. Early planning can save money. Environmental assessments aid in the choice of suitable sites, and in some cases they have demonstrated that a particular site is not suitable for the planned facility.

The preparation of this environmental assessment report commenced in April, 1973. At that time the report was projected as an "in-house" document, to be used primarily as a planning tool within Amax. The timetable called for completion of the report in October, 1973. Work on the assessment was undertaken by the Amax team in Portland. A number of consultants were hired to develop specialized information. Amax personnel received training in impact analysis at the Rocky Mountain Center on Environment in Denver in June, 1973.

As information was accumulated by the assessment team, preliminary studies were made, and planning decisions were changed relative to both technical on-site aspects of the project and to social or economic community aspects of the project. Continued consultation with local, County, state and federal governmental agencies, and meetings with citizen groups in Clatsop County introduced changes in planning decisions.

Throughout the preparation of this report, change became constant; an environmental assessment is seemingly never complete; it remains a "live" document. It may be that the action-forcing aspects of impact assessment are more important than the documentation produced. The constant concern for the effects of particular developmental actions upon environmental components, and the need to re-evaluate decisions as new information is developed creates a dynamic interchange among project planners that helps to prevent thoughtless harm to the environment.

Amax completed a draft of its environmental assessment report in August, 1973, well ahead of schedule. Extracts from the report were circulated in Clatsop County and a number of meetings were held for the purpose of securing citizen comments on the Warrenton plant. A number of problems not adequately considered in the draft report were identified as a result of these meetings. Work on these problems began in the fall of 1973, but was essentially suspended when new Oregon aluminum plant emission standards were adopted in November, 1973.

In January, 1974, Amax undertook a thorough review of the Warrenton project, with specific emphasis on the air control system and the possibility of complying with the new standards. During the same month, the Oregon Department of Environmental Quality asked Amax to submit an environmental impact report if it decided to file amended permit applications. Amax reviewed the draft environmental

impact assessment which it had developed in 1973 and decided that it could serve as a vehicle for preparing the report requested by the Department of Environmental Quality, but that a number of deficiencies would have to be remedied. Chief among the shortcomings of the draft was an inadequate analysis of socio-economic impacts and aesthetics.

In February, 1974, Amax engaged consultants to supplement the Amax report. These consultants have the professional staff to do a more in-depth search and analysis, particularly of the impacts of the Warrenton project upon the neighboring communities in Clatsop County. The analyses of these consultant groups are included as separate appendix volumes to this report. These consultants were encouraged to propose actions to mitigate the effects of impacts identified by their analytical work. Their recommendations are also included in the appendix.

As with the original draft report, the renewed impact analysis effort which has taken place since January, 1974, has introduced many new ideas into the planning process and has resulted in several significant changes in project plans. The most significant changes result from changes in the air emission predictions for the plant, and from a redesign of plant layout and aesthetics. Although the present impact analysis is now being submitted in response to governmental request, it continues to be an extremely useful planning tool for the project. During construction and operation of the plant Amax expects to engage in continuous review of the information and analysis, and may amend the analysis where warranted.

III

III - PROJECT BACKGROUND

A. Action Proposed III-1

B. What Will The Plant Do? III-2

C. Why Located in Warrenton? III-6

D. What About the Aluminum Business? . . III-8

III. PROJECT BACKGROUND

A. ACTION PROPOSED

Amax Pacific Aluminum Corporation (Amax) proposes to construct an aluminum reduction plant in Warrenton, Oregon. It will be a two-potline plant and have an annual capacity of 187,300 short tons. The first potline startup is planned for December 1976 and the second about July 1977. These startup dates are consistent with the projected availability of energy from Bonneville Power Administration.

The plant design, including air and water control facilities, was developed by Kaiser Engineers (KE), and is based on Kaiser Aluminum and Chemical Corporation (KACC) technology. The technology to be utilized represents the most modern technology available.

The project and Warrenton siting were initially established by Northwest Aluminum in 1966. Amax purchased the site in September 1970. The Bonneville Power Administration power contract was assigned to Amax at that time.

B. WHAT WILL THE PLANT DO?

Basic Process - Alumina (Al_2O_3) is the basic raw material needed for the production of aluminum. Alumina for this plant will be imported from Australia. Approximately 1.93 pounds of alumina are required to produce 1.0 pound of aluminum.

The production of aluminum consists of converting alumina into metallic aluminum by electrolytic reduction. This phase of the operation is planned to be done at Warrenton.

In 1886 Charles M. Hall found that aluminum oxide, dissolved in molten cryolite, could be decomposed electrolytically without decomposing the cryolite. This is basically the same process used today in making aluminum. There have been refinements, of course, but the process still employs a carbon-lined vessel containing molten cryolite in which alumina is dissolved. Metallic aluminum is reduced from the oxide by passing an elctric current through this solution at a temperature 970°C. Hall also found that certain fluorides mixed with cryolite lowered the melting point of the solution and had other beneficial effects.

Today's electrolytic cells consist of a cathode, or pot, and an adjustable anode beam, from which the anodes are suspended into the pots. The pot lining is up to 14 inches thick and is either molded in place or built up of carbon blocks cemented together with a mixture of pitch and ground coke. The anodes consist of carbon blocks, which have been suitably joined to a conducting rod to allow connection to the anode beam. Electricity flows through the conducting rod into the carbon anode, which is suspended into the electrolyte, and then through the electrolyte into the carbon-lined bottom, where it is collected by means of steel collector bars and distributed to the cathode buss system. The depth of immersion of the anode into the electrolyte is adjustable and is carefully controlled.

The Warrenton pots will require currents of 155,000 amperes and will produce 2,400 or more pounds of aluminum each day. As they operate at low voltage (4.5 volts or less each) long rows of pots are connected in series for group operation at higher voltage (about 900 to 1000 volts). There will be 428 pots at Warrenton, 214 in each line or voltage series.

Since the Hall electrolytic process requires direct current and most power systems today produce alternating current, a means of conversion must be provided. In modern plants this is accomplished by silicon rectifiers housed at the plant.

In the reduction process, the electrolyte, cryolite with alumina dissolved therein, is maintained molten and at the proper temperature from the heat generated by the resistance of the electric current passing from the anode (or anodes) through the cryolite on its way to the collector bars in the carbon lining. Heat loss from the electrolyte causes a frozen crust on the top and sides of the molten bath.

As the electrical current flows through the molten solution, the current breaks down the alumina into oxygen and aluminum. The aluminum collects in the bottom of the pot. The oxygen, liberated in the process, combines with the carbon from the anodes to form carbon dioxide which escapes through the surface crust. This process gradually consumes the carbon anodes leaving the cryolite substantially unaffected, although some volatilization takes place which requires the cryolite to be replenished on a routine basis.

A routine schedule is established for feeding fresh alumina into the pot. When the electrolytic action has continued long enough to reduce the alumina content of the cryolite solution to 2 to 3 percent, a resistance light automatically comes on. The crust, which is covered with alumina is automatically broken, and the alumina is stirred into the molten crylolite. As the content of alumina in the bath reached the 5 percent range, the resistance light goes off. The reduction process is continuous--the pots operate 24 hours a day every day of the year.

The carbon anodes are consumed in the reduction process. As the anodes are consumed, adjustments are made to maintain a uniform distance between the anodes and metal. Before an anode is completely consumed, it must be replaced without interruption to the process. The Warrenton pots will contain 18 anodes; the anodes are changed one at a time.

The high consumption of anodes (approximately 0.5 of a pound to every pound of aluminum produced) usually makes it economically essential for modern reduction plants to make their own. Materials are carefully selected, since impurities in the anodes will be introduced into the molten

bath and possibly into the metal itself. Petroleum coke and pitch, are the basic materials employed. The mixture is pressed, or vibrated, into carbon blocks, which are then baked at a high temperature.

As molten aluminum collects at the bottom of the pots, it is siphoned off daily through cast iron tubes into large crucibles. These crucibles are then transported to a cast house where the metal is poured into holding furnaces. From these it is cast into a variety of ingot shapes. Often, alloying ingredients are added to aluminum in the holding furnaces so that ingots will have the proper end-use properties.

A pictorial flow diagram of a reduction plant follows on page III-6.

Recent Improvements - The plant will utilize the latest demonstrable aluminum reduction technology. The Hall process is the basic concept, but sizing, electrical efficiencies, and process control have been upgraded to create economic and automatic, computerized operations. Other methods of reduction of alumina have been experimented with over the years, but to date no economically feasible substitute method has been developed.

One of the most significant improvements in the process has been the most recent--the control of air and water contaminants given off by the process. Pot emissions are now collected at the pots and are ducted to reactors where the key contaminant, gaseous hydrogen fluoride, is combined or chemabsorbed with the incoming alumina feed to the pots. This step is followed by a filter bag system which collects the particulate emission from the pot together with the fluoride-coated alumina. The resultant emission to the atmosphere from the system is essentially clean air.

The advantages of the system are:

1) The collection of all fumes by the pot hooding system has been demonstrated at over 98% efficient. The dry scrubbing system has operated at better than 99% efficiency.

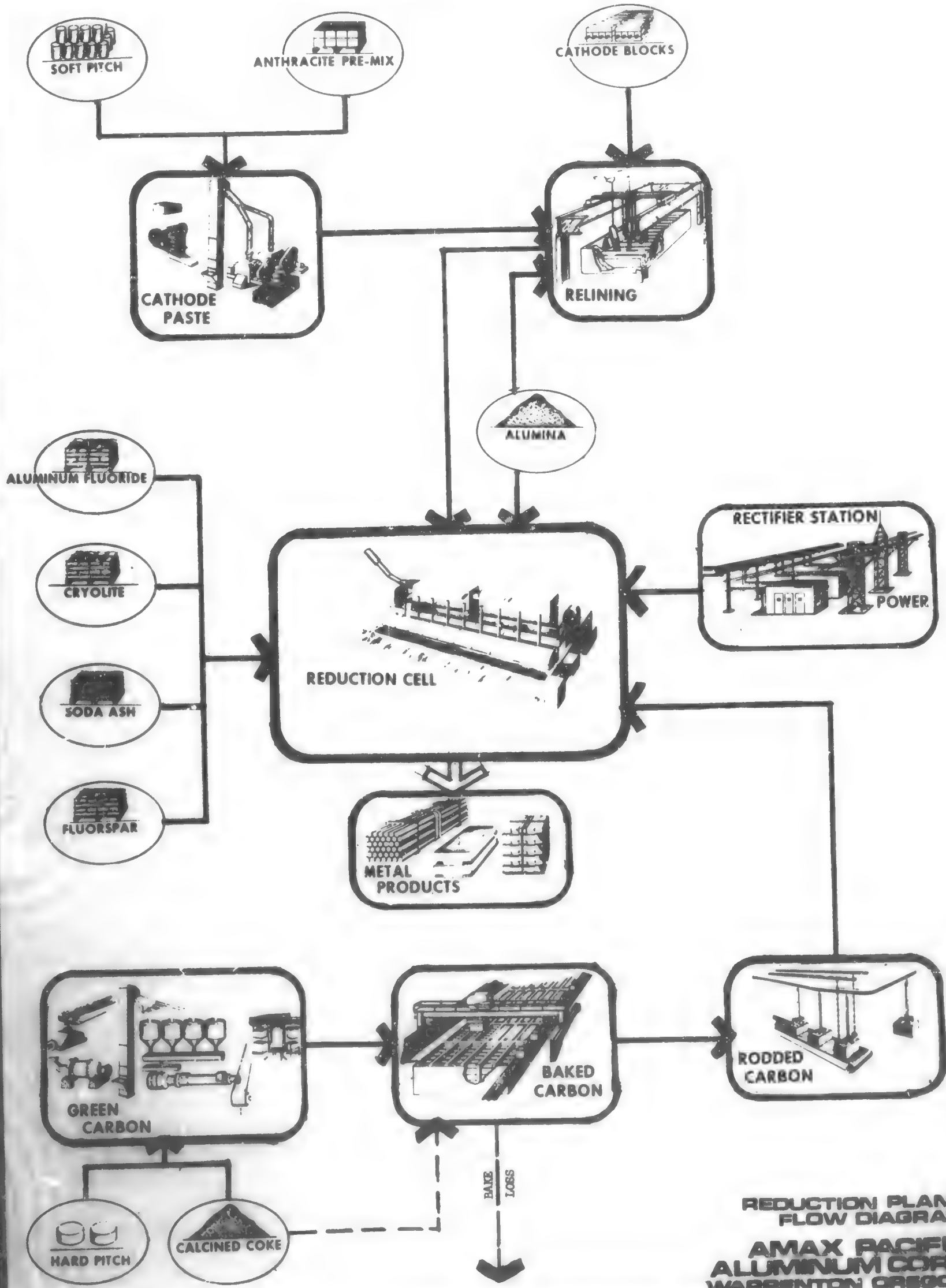
   The collection and scrubbing system has been proven to remove more than 98% of the fluorides emitted at the cells.

2) It feeds or recycles the two key raw materials in the process--alumina and fluoride.

3) It is dry. No water is required in this primary process, thus eliminating a potential problem of water contamination and discharge.

The Aluminum Company of America (ALCOA) has announced a technological breakthrough in the production of primary aluminum. This ALCOA process is reputed to produce aluminum with a reduction in the consumption of electrical energy as compared to the present Hall process.

ALCOA is presently constructing a small pilot plant in Texas in order to test their new process. It is unknown today whether this new process will be proven commercially feasible. ALCOA is presently expanding its reduction capacity utilizing the Hall process.



REDUCTION PLANT
FLOW DIAGRAM

AMAX PACIFIC
ALUMINUM CORP
WARRENTON OREGON

C. WHY LOCATED IN WARRENTON?

The key reasons for locating the plant at Warrenton:

1) Industrial power availability.

2) Working deep water port.

3) Site availability.

4) Environmental suitability

5) Available labor pool.

6) Compatible with "economic balance" plan of local and state authorities.

The siting analysis showed that the Astoria/Warrenton area has potential for certain types of industries. The area is suitable for primary industries requiring port facilities, particularly with raw materials originating in the Pacific. Aluminum plants and oil refineries are the prime candidates for the industrial development of an area of this sort. Disadvantages of the area are distance from intensive markets (Eastern United States) and associated freight costs.

Availability of power is a key feature in the siting of the plant. The reliability of such power is an important consideration. The BPA grid is fundamentally hydroelectric. In spite of some cutbacks of industrial type power during acute dry spells, this power is considered to be the most reliable in service and the lowest cost in the United States.

The site was pre-selected by Northwest Aluminum. It has already been cleared and rough graded. General physical construction requirements appear to be adequate.

Environmental studies indicate that the area can accommodate an aluminum reduction plant if air and water pollution controls are installed and properly operated.

The Astoria/Warrenton area shows an emigration of young people. Unemployment averages 6 percent and the seasonability of employment is pronounced. The labor pool is there if an opportunity for steady employment is presented. Clatsop Community College in Astoria, a vocationally oriented school, offers an opportunity for the development of cooperative training programs for underskilled people.

The local unemployment picture has focused attention to the economic advantages, to the county and State, of the plant being located in Warrenton. Clatsop County is an area that has had essentially below average economy since 1920. Population is declining, stores are empty, poverty levels are higher than most areas, there is an absence of young people--all symptoms of a substandard economic health.

The plant, with a steady employment, a $12 million payroll, using and paying for supportive goods and services, would provide a better economic health and balance to the county than exists at present. Proper planning and integration of the facility into the community could provide economic advantages.

There are distinctive reasons favoring the Warrenton site, which may not be common to other areas. These include the working, deep-water port; site availability; environmental suitability; and the opportunity to provide an economic boost where the need exists.

D. WHAT ABOUT THE ALUMINUM BUSINESS?

The aluminum business has been cyclical over recent years and profits have been low and/or variable. Why would anyone want to build a plant in this atmosphere?

Mr. Tom Stoepler, Market Research Manager of Amax Aluminum Company, Inc., has prepared the following paper on "Aluminum Industry Supply and Demand".

ALUMINUM INDUSTRY SUPPLY AND DEMAND

Western World Five-Year Outlook

Booming worldwide economic conditions in 1973 pushed the demand for primary aluminum up by 17.5% in the Western World last year. Excess industry inventories have been consumed, and over one-half of the U.S. government stockpile of aluminum has been shipped out. Producing facilities around the world are now being operated at 100% of effective capacity. In the United States an economic slowdown is expected this year, but even zero growth in shipments will require consumption of the remaining stockpile metal.

As a basic industrial raw material, aluminum will be required in increasing amounts as the economy recovers in 1975. Outside of the United States, demand is expected to grow by 8.5% annually after 1974, while growth in the U.S. averages about 7.5% annually. The following table shows forecast consumption patterns over the next five years.

TABLE I
Western World Primary Aluminum Consumption Forecast
1973 - 1978

	Consumption (Million Tons)		Percent of Consumption		Percent of Forecast Consumption Growth
	1973 (Actual)	1978 (Forecast)	1973 (Actual)	1978 (Forecast)	1973-1978
United States	5.6	7.7	46%	44%	40%
Rest of Western World	6.7	9.8	54%	56%	60%
Total Western World	12.3	17.5	100%	100%	100%

One development highlighted by Table I is the shrinking of the U.S. share of world aluminum consumption due to lower forecast growth rates, associated with a relatively mature economy. Because of the large industrial base in the U.S., however, even this slower growth will account for 40% of the Western World total increase in the use of aluminum.

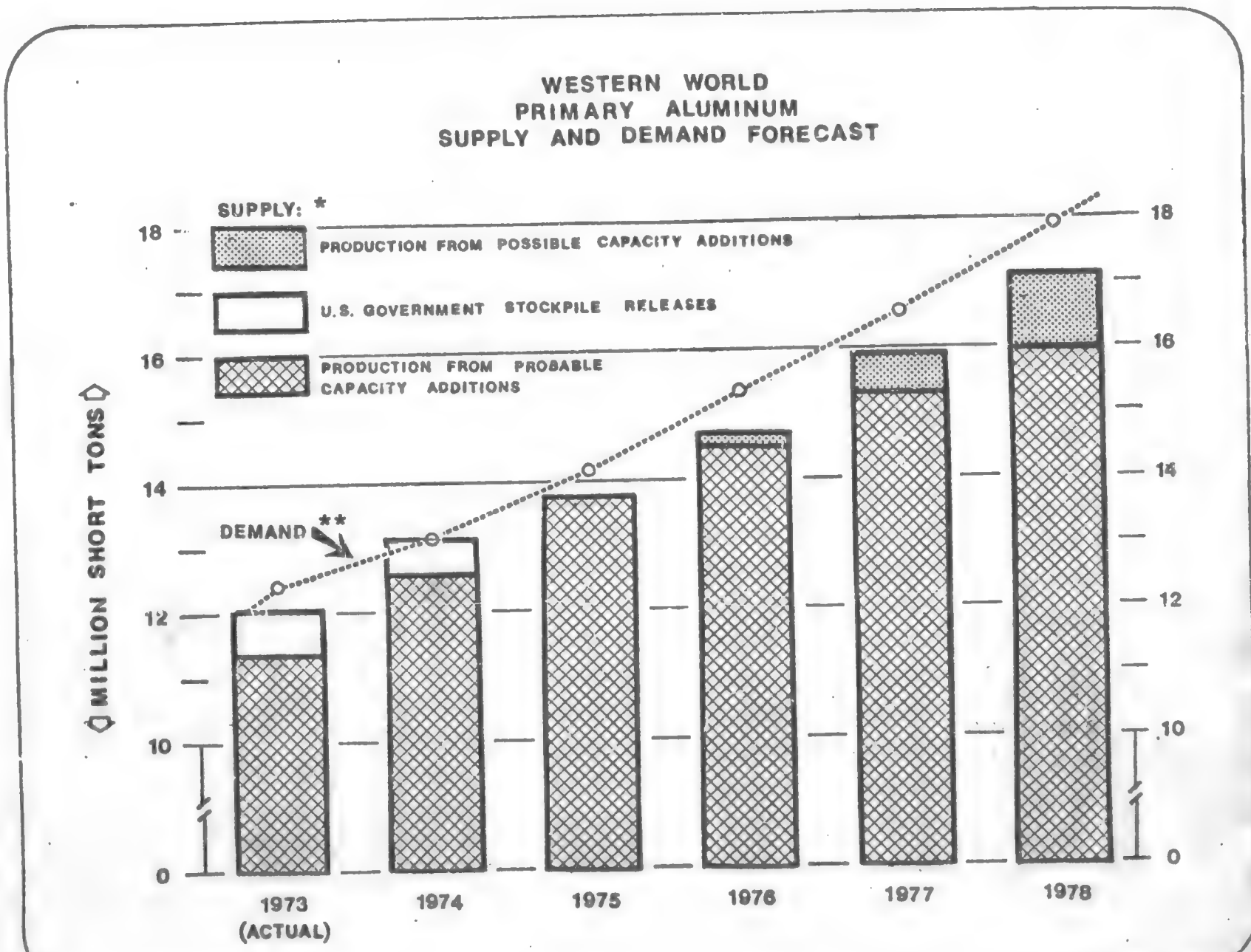
During the early seventies, the aluminum industry experienced a simultaneous slowing of demand growth and overbuilding of production capacity. The severity of the oversupply situation with its effects on prices and profit margins, caused the cancellation and deferral of many planned new production facilities. Lack of power availability and environmental regulations have also restricted the installation of new capacity worldwide. Table II summarizes a detailed analysis of planned aluminum production capacity additions through 1978.

TABLE II
Western World Primary Aluminum Production Capacity
1973 - 1978

	Capacity (Million Tons)		Percent of Capacity		Percent of Forecast Capacity Growth
	1973 (Actual)	1978 (Forecast)	1973 (Actual)	1978 (Forecast)	1973 - 1978
United States	4.8	5.6	39%	34%	18%
Rest of Western World	7.4	11.1	61%	66%	82%
Total Western World	12.2	16.7	100%	100%	100%

A comparison of Table I and Table II reveals that the U.S. share of world aluminum production capacity is due to shrink much faster than this country's share of world consumption. The United States is likely to become increasingly short of primary aluminum production capacity over the next five years.

A comparison of supply and demand over the next five years, as shown in Chart A, indicates that supply will be insufficient to accommodate theoretical demand growth. The major implication of the resulting excess demand, of course, is continued price escalation. With major consuming areas such as Japan and the European Common Market facing capacity addition restraints and becoming high-cost producing locations, the price of aluminum will inevitably be bid up in the international market. Economic areas which are not self-sufficient in aluminum production will be faced with shortages of this basic raw material, and/or the purchase of high-cost marginal supplies for an important input to their industrial raw material base.



* Production shown is 100% of effective installed capacity (98% of average annual capacity). Possible capacity additions are felt to have about a 50% probability of being installed in the year shown.

** Demand includes consumption plus increases in normal industry working inventories. Additionally, 1974 demand includes a replenishment of accumulated inventory deficits due to supply-demand imbalance in 1973.

Long-Range U.S. Outlook.*

Growth in domestic U.S. aluminum shipments has averaged 7.9 percent per year for the period 1947 to 1973. Domestic shipments have had a high correlation to industrial activities, and this relationship is expected to continue through the next three decades.

Generally accepted economic forecasts (and national goals) indicate that the U.S. economy will grow at 4 percent real growth per year. For the purpose of this statement a more conservative growth in economic activity was used, and the rate was decreased slightly in ten-year increments. The following table shows expected economic growth and resulting U.S. domestic aluminum shipments.

TABLE III
U.S. Real Gross National Product
& Domestic Aluminum Shipments
1947 - 2000

Period	Annual Growth - Real G.N.P.	Annual Growth - Domestic Shipments	Domestic Shipments Level (Billion Pounds)
1947-1973	3.9%	7.9%	1973 : 13.6
1973-1980	3.8%	6.7%	1980 : 21.4
1980-1990	3.5%	6.3%	1990 : 39.4
1990-2000	3.0%	5.5%	2000 : 67.3

The supply necessary to satisfy the demand schedule in Table III, considering pipeline inventory and very modest exports of 1.6 percent of total shipments, is as shown in Table IV.

TABLE IV
U.S. Aluminum Supply Requirements
1972 - 2000

Year	Total Supply (Billion Pounds)
1973	14.1
1980	22.4
1990	40.8
2000	69.3

*Adapted from "Statement to the National Commission on Materials Policy," The Aluminum Association, February 22, 1973.

Total sources of supply for 1973 and the year 2000 are shown in a final table.

TABLE V
U. S. Aluminum Supply Sources
1973 & 2000

Supply Source	973	2000
Domestic Primary Production	9.1	51.5
Ingot Imports	1.0	
Government Stockpile Releases	1.5	.0
Mill Product Imports	0.1	0.5
Domestic Seoondary Recovery	2.3	17.0
Recovery From Imported Scrap	0.1	0.3
	14.1	69.3

An assumption that is made in Table V is that secondary recovery will increase from 17 percent of supply in 1973 to 25 percent of supply by the year 2000 due to further reclamation of old scrap. The domestic demand for primary aluminum in the United States in 2000 would therefore be 51.5 billion pounds. This demand - more than five times present U. S. primary aluminum capacity - must be supplied by domestic primary aluminum production, or by imports to the extent available; otherwise the availability of this vital metal will be seriously curtailed.

The foregoing report makes it very clear that the annual ingot production from the proposed Warrenton plant can play a very necessary role in the future supply-demand balance in the United States aluminum market.

IV

IV - THE PHYSICAL PROJECT

A. General Arrangement IV-1

B. Required Facility Development - Plant IV-5

C. Required Facility Development - Dock. IV-8

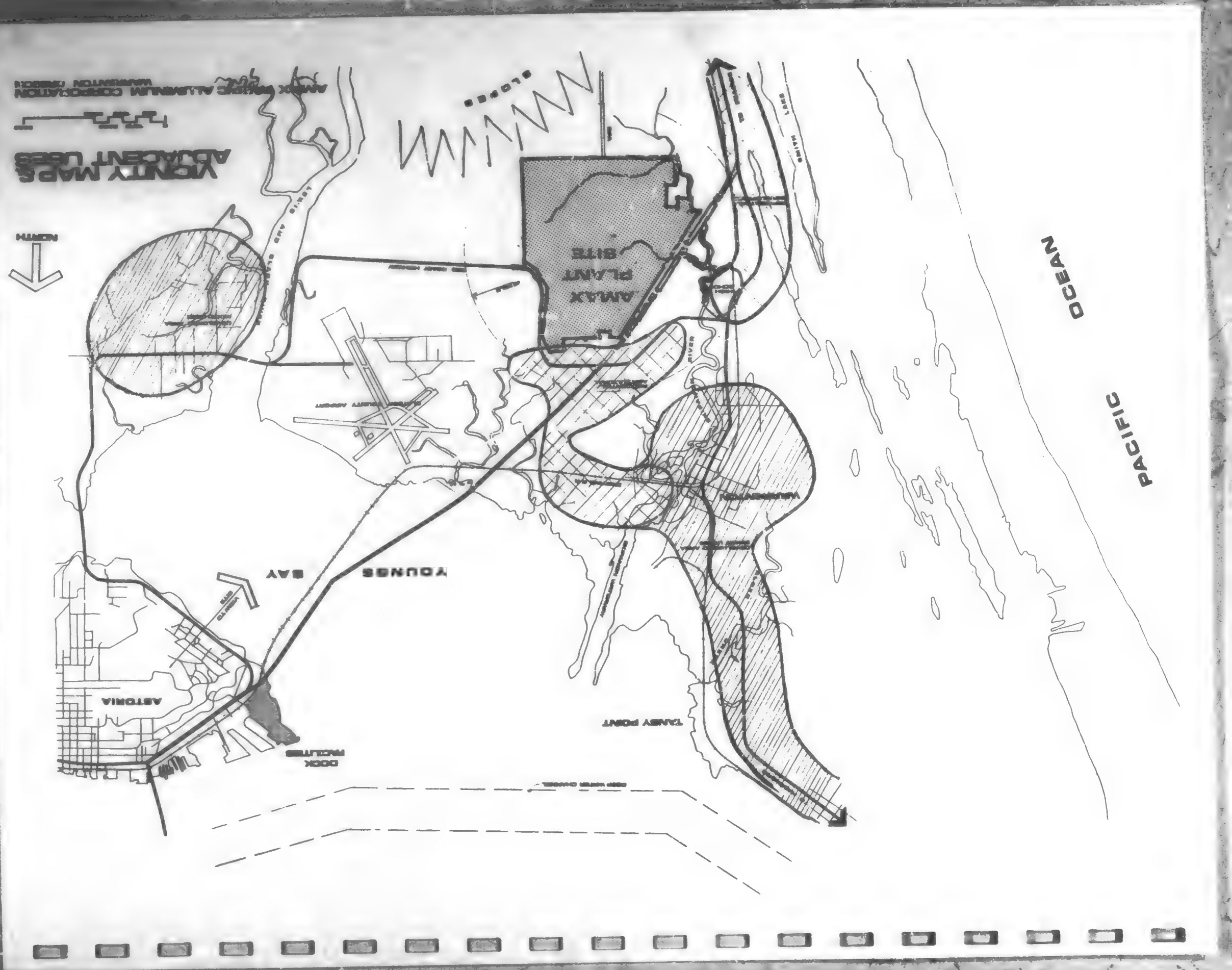
D. Required Traffic Pattern. IV-10

E. Processes IV-11

F. Process Residuals IV-15

G. Plant Refuse Disposal Methods IV-20

H. General Timetable IV-22


VICINITY MAPS
ADJACENT USES
NORTH
AMAX PLANT SITE
OCEAN
PACIFIC
YOUNGS BAY
ASTORIA
DOCK
TANSY POINT

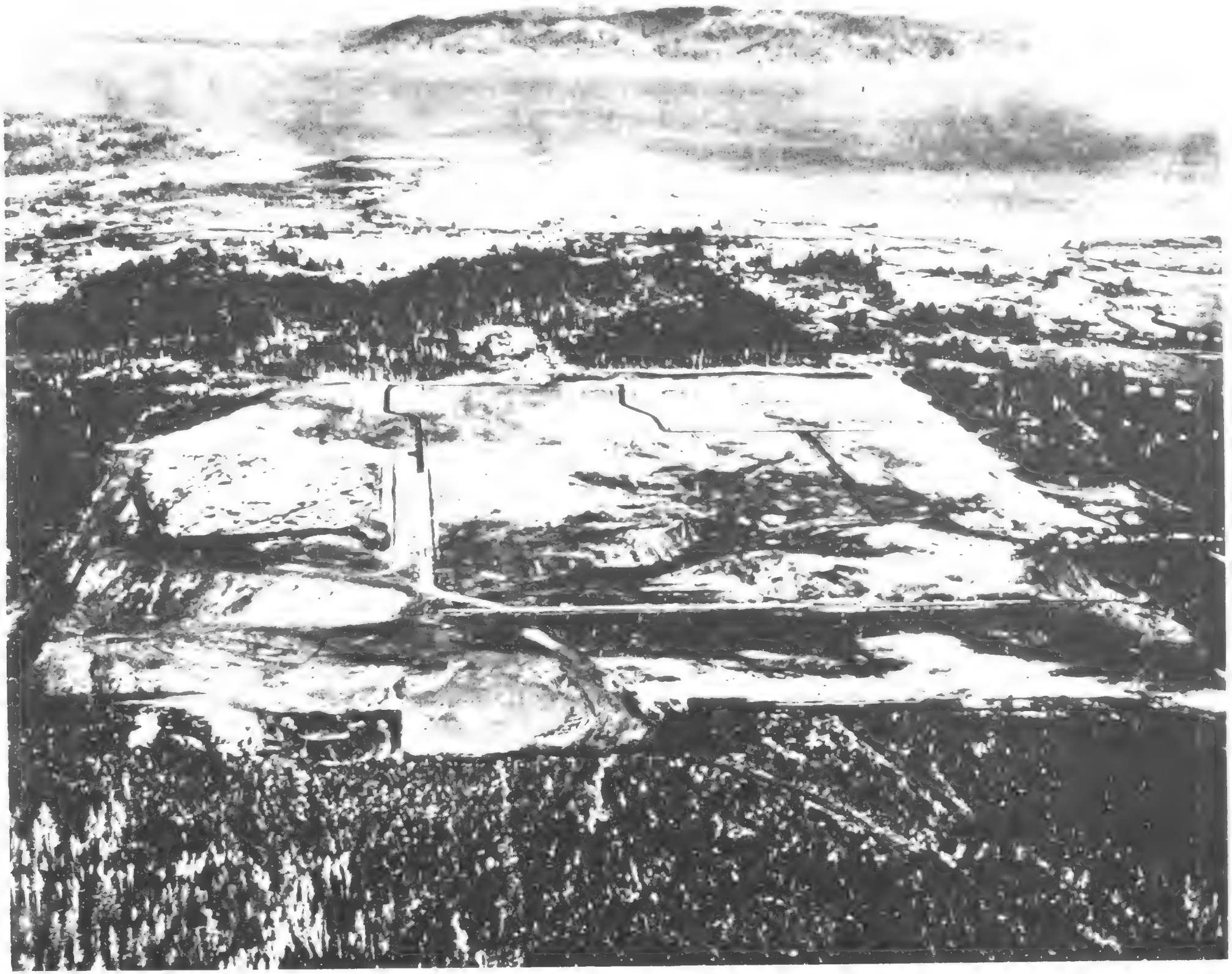
IV. THE PHYSICAL PROJECT

A. GENERAL ARRANGEMENT

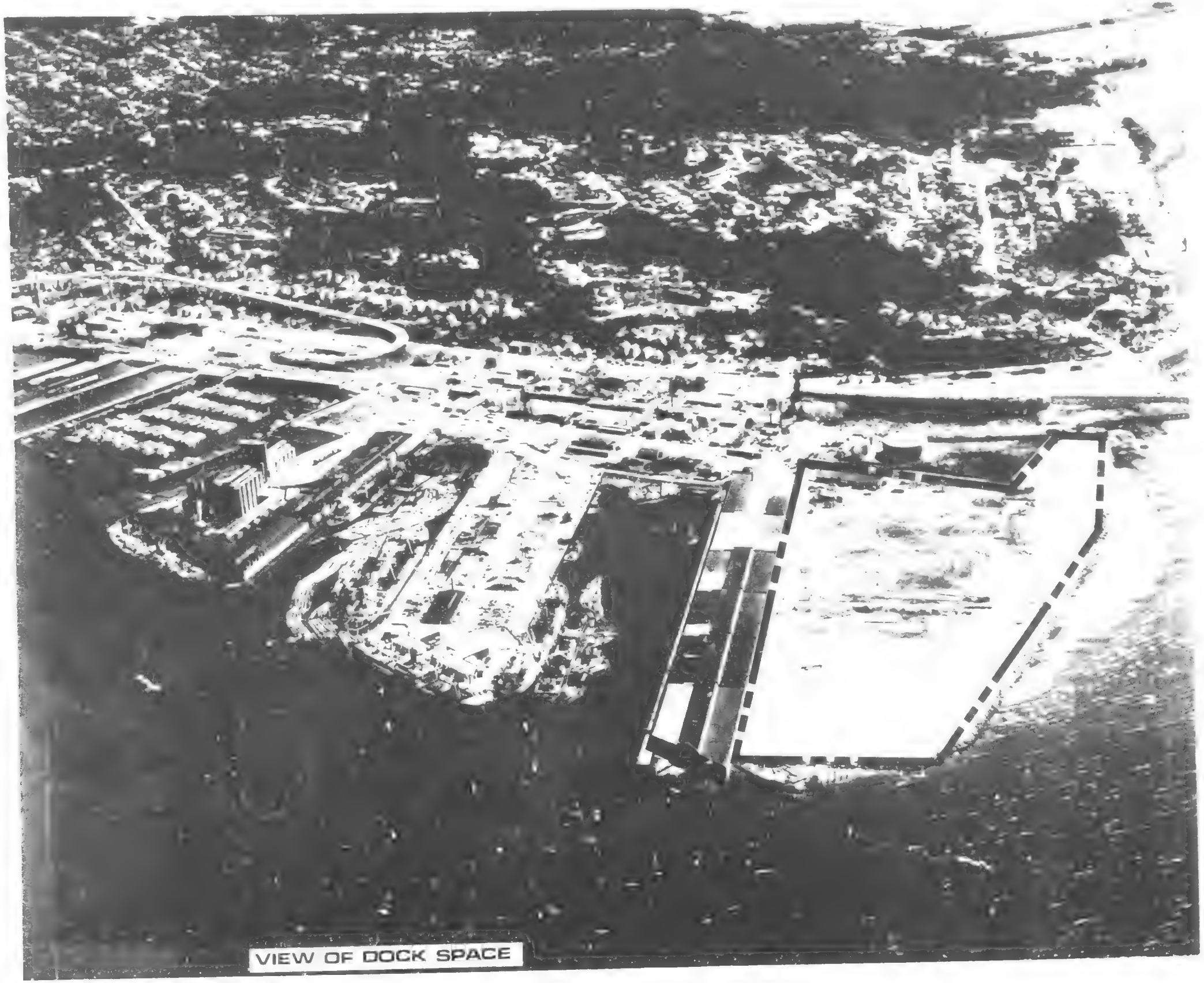
The proposed plant is to be constructed in Clatsop County in the State of Oregon on a site of approximately 726 acres, nearly 240 of which were cleared and rough graded in 1968-9. The site is located approximately four miles from the Port of Astoria and lies south of Highway 101, as illustrated in the site location drawing, page IV-2, and enclosed photograph, page IV-3. The plant will be oriented approximately north-south (line of pot-rooms) with a finished grade at approximately 43 feet. Spread footings, cast on site concrete piles and driven pilings, will be used under structures as soil conditions dictate. All structures will be designed in accordance with local requirements.

A rail spur from existing trackage to the plant property will be constructed by Burlington Northern Railway. This will provide for rail receipt of raw materials and shipment of finished products as well as a connection with the Port.

The pier and material storage areas will be constructed adjacent to Pier No. 3 by the Port of Astoria. Twenty-six acres are available for the construction of a general-purpose dock with specialized vacuum unloading equipment for alumina and other raw materials. Burlington Northern trackage already exists at the Port. A photograph of the port site is enclosed on page IV-4. Additional port facility information is presented in Appendix A.



VIEW OF PLANT SITE LOOKING NORTH



VIEW OF DOCK SPACE

B. REQUIRED FACILITY DEVELOPMENT - PLANT

Of the total 726 acres, 160 are proposed to be developed as the active plant site. This area will be graded with a general gradient of 1 percent north-to-south except for building benches which will be maintained level. Spoil from grading will be stockpiled and later utilized for foundation backfill, landscaping and settling pond construction.

Of the developed plant area, approximately 80 acres will be occupied by buildings, roads, substations, transmission lines, courtyards and storage areas. During construction, development of an additional 20 acres will be required for equipment and component storage.

Major buildings necessary to house the aluminum reduction process include:

1) Potline buildings
2) Metal service or casting building
3) Anode manufacturing facility
4) Maintenance shops
5) Administration building
6) Laboratory - plant offices
7) Electrical substation
8) Storage facilities for alumina, coke, pitch, fuel oil, water and compressed air
9) Air and water control/treatment centers

Height of plant structures will vary between 25 and 75 feet, with the exception of the anode manufacturing building which will be 122 feet high.

Stacks will be employed at emissions control centers to provide for emission dispersion; such stacks will not exceed 150 feet in height above grade or 28 feet above the highest manufacturing building.

Following the completion of buildings and roads, open spaces on the plant site will be landscaped. The plant aesthetics and landscaping will be done by a qualified architect.

Proposals for the aesthetics and landscaping are covered in detail in the appendice volume entitled, "Development Plan".

Areas will be paved to provide for ground surface protection and to facilitate process storage and cleanup procedures. Crushed rock, 6 inches deep, will be laid in some sections to control erosion and provide suitable storage areas.

Soil analyses indicate that a combination of spread footings and pilings will be necessary to support design loads. Most equipment in the plant will be mounted above grade. The baking furnace requires a pit about 12 feet deep, however, and the butt crusher and direct chill casting machines require pits 30 feet deep.

The combined use of piling and spread-type footings and the mounting of most equipment above grade minimizes the disturbance of subsurface material.

Alternate plant arrangement drawings are included on pages IV - 7 and IV - 8.

ALUMAX PACIFIC ALUMINUM CORP.

ALUMAX REDUCTION PLANT

PLOT PLAN & EMISSION LOCATIONS

72222

50 5-6

ALUMAX PROPERTY LINE

U.S. 101

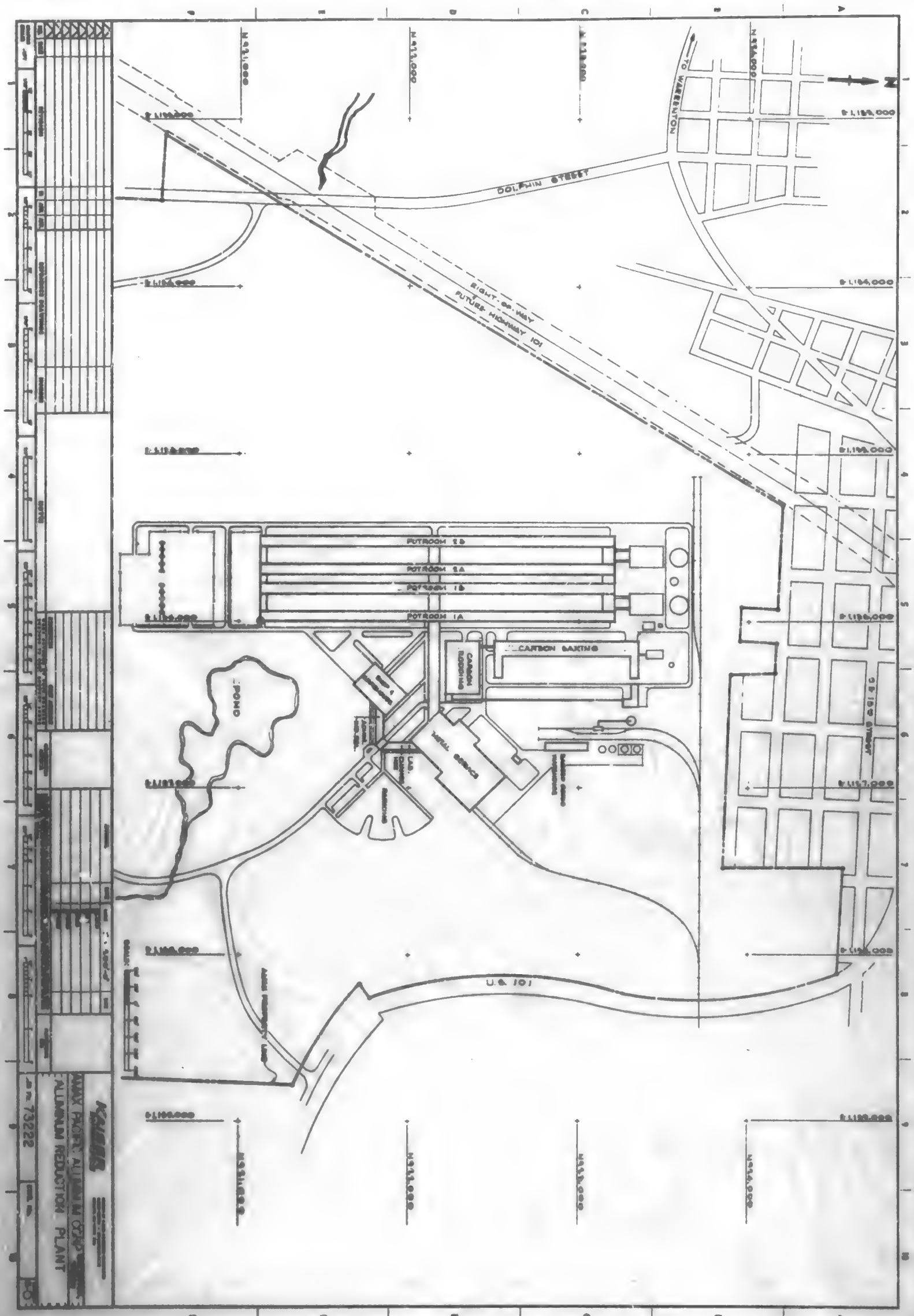
SPOKANE, PORTLAND & SEATTLE RAILROAD

SKIPANON RIVER

DOLPHIN ST.

TO WARRENTON

N


DOLPHIN STREET
EIGHT-OF-WAY
FUTURE HIGHWAY 101
WARRINGTON TO
POTROOM 2B
POTROOM 2A
POTROOM 1B
POTROOM 1A
CARBON BAKING
CARBON MACHINING
METAL SERVICE
POND
U.S. 101
KAISER
ALUMINUM & CHEMICAL CORP.
ALUMINUM REDUCTION PLANT
DWG. 73222

C. REQUIRED FACILITY DEVELOPMENT - DOCK

Marine terminal facilities are required to support the proposed Amax aluminum reduction plant. Both alumina ore unloading facilities and finished product shipping facilities will be necessary.

Unloading facilities required:

1) The pier should be able to accommodate ships of at least 40,000 tons and 700 feet in length.

2) A vacuum unloading machine, capable of handling 15,000 tons per day.

3) A storage building of approximately 60,000 tons capacity.

4) A truck or rail car loading facility at the storage building.

Shipping facilities required include:

1) Ingot storage area close to the pier.

2) Product moving equipment, such as forklifts, etc.

One site for the marine terminal facility is just west of the Pier No. 3 area at the Port of Astoria (see Appendix A). This site, owned by the Port, currently contains old pier pilings and consists of an open 26-acre area that is already riprapped and backfilled. Elevation is 12 feet. The area is empty and unused except for some log storage; development as a pier area would be consistent with existing adjacent land use and structures.

A new dock would be necessary. This new dock, which would parallel the Columbia River channel in an east-west direction, would be used by Amax solely for alumina ore unloading. Since the Amax requirement for this facility would be approximately 4 to 6 days per month, the Port of Astoria could plan on development of a multi-purpose wharf for other shipping when not servicing Amax.

The new dock, to be developed under the direction of the Port of Astoria, will likely be typical wharf construction, with driven piles, timber and paved deck. Responsibility for maintaining the depth of the docking channel would be by the Port and the Corps of Engineers.

Transportation of alumina ore from the marine terminal to the smelter could be by either (1) rail hopper cars, or (2) sealed ore trucks.

The rail concept would provide for use of 100-ton sealed hopper cars, from the dock to the plant site, via the Youngs Bay trestle. The Burlington Northern are examining necessary changes to the Youngs Bay crossing.

The road concept would utilize semi-trailer ore trucks (75,000 lb. gross weight, 50,000 lb. load, on five axles). The sizing would be consistent with State limits. Trucks would traverse Hamburg Street to its intersection with State Highway 101, and proceed 3.8 miles south on 101 to the plant site.

The finished product in the form in ingot will be shipped by rail to domestic customers. Ingot being shipped overseas will be trucked to the Port.

D. REQUIRED TRAFFIC PATTERN

By assuming an expected key commodity receipt/shipment model, a commodity traffic requirement can be determined for the plant. If alumina shipment to the plant is assumed to be rail, 50 percent of ingot production to be trucked to the Port for export, and all other key commodities to be shipped by rail, the following traffic requirement emerges:

Receipts	Annual Tons	Transport	Unit Weight Tons	Yearly Loads	Avg. Loads* Per Day
Alumina	363,000	Rail	100	3,630	14 car loads
		(or)			(or)
		Truck	25	14,520	57 truck loads
Petroleum Coke	77,000	Rail	90	856	4 car loads
Pitch	20,000	Rail	90	222	1 car load
Other	6,510	Rail	50	130	0-5 car loads
Shipments					
Domestic Ingot	93,650	Rail	50	1,873	7.3 car loads
Export Ingot	93,650	Truck	22	4,257	17 truck loads

* Average loads per day based on 5-day week, 255 days per year.

Therefore, an average of 14 rail car loads daily, on five days/week, would be shipped from the port. Other rail receipts at the plant would range from 5-10 rail cars per day. This total rail traffic to the plant would require two switches per day.

Ingot shipments from the plant averaging 7-8 railcars per day could run as high as 12-15 carloads per day when ingot is not consigned for export.

Export ingot, trucked to the port, averaging 17 truckloads per day, will likely be moved to the port with a higher trucking frequency, up to 30-35 truckloads per day when an export shipment is being accumulated at the port.

Other items required by the plant, such as spare parts, supplies, dunnage, etc. would be trucked in on a random basis. Daily, these would include approximately three common carrier deliveries, ten vendor deliveries, two refractory loads, and two parcel post/United Parcel deliveries.

E. PROCESSES

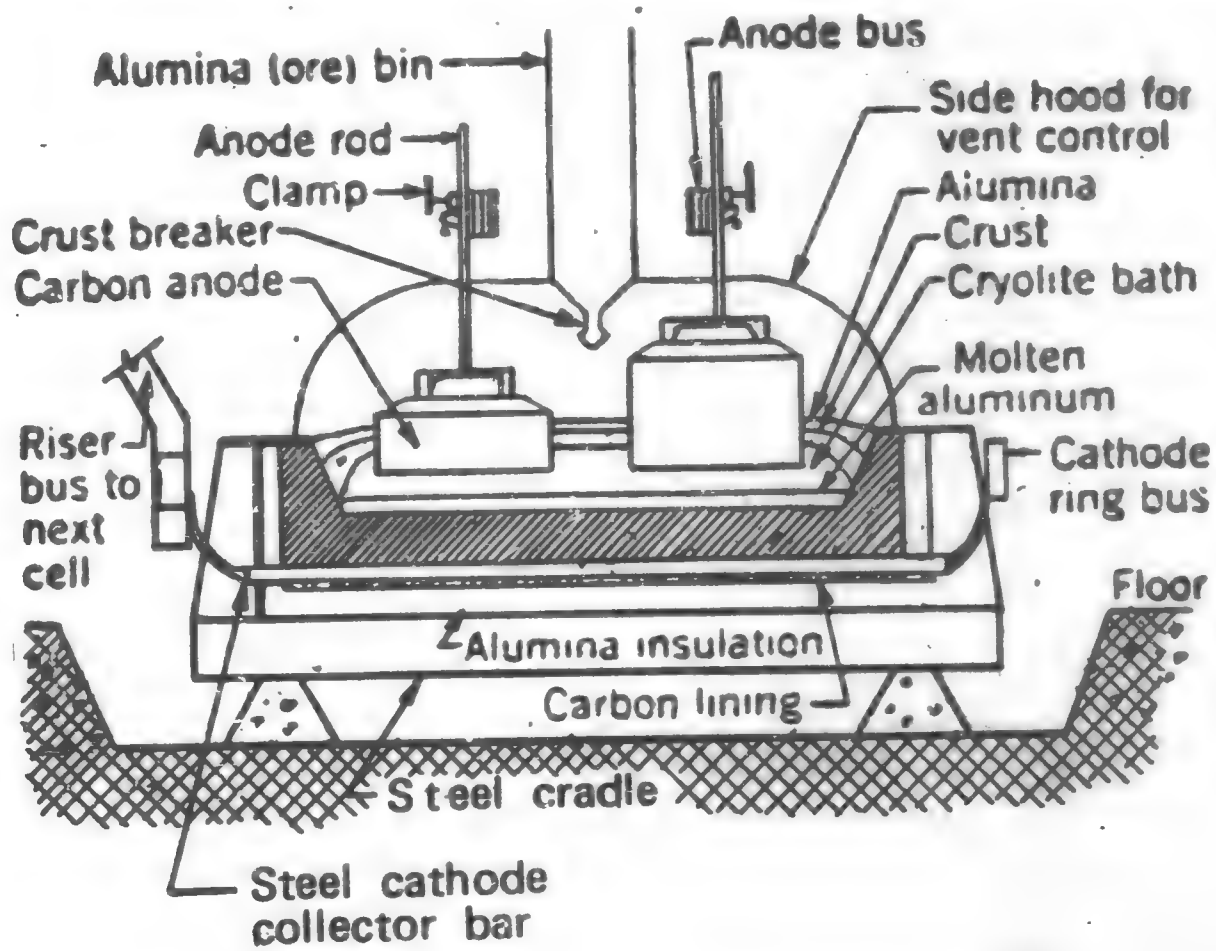
The process for the production of aluminum involves the electrolysis of alumina (Al_2O_3) which is dissolved in a bath of fused cryolite (Na_3AlF_6). The cell, or pot, shown diagrammatically on page IV-13 consists of a steel shell lined with carbon blocks, which serve as the cathode. The anode consists of a set of carbon blocks suspended and mechanically positioned from above. Molten cryolite introduced between the anode and cathode acts as a resistance element through which the electricity flows, thus generating sufficient heat to hold the pot at the required temperature. Molten aluminum sinks to the bottom of the pot and is tapped out periodically and sent to the cast house to be cast into various shapes. A typical potroom is pictured on page IV-14.

A supporting activity in the proposed plant is the preparation of carbon anodes used in the electrolytic process. In this process, a mixture of calcined coke, spent anode returns and pitch binder is blended in a mixer and formed into anodes. These "green" anodes are then baked in a furnace after which they are connected to electrical conductors to complete the anode assembly and introduced into the electrolytic cell. Oxygen produced by the decomposition of alumina burns the anode carbon and consumes the anode in about 25 days.

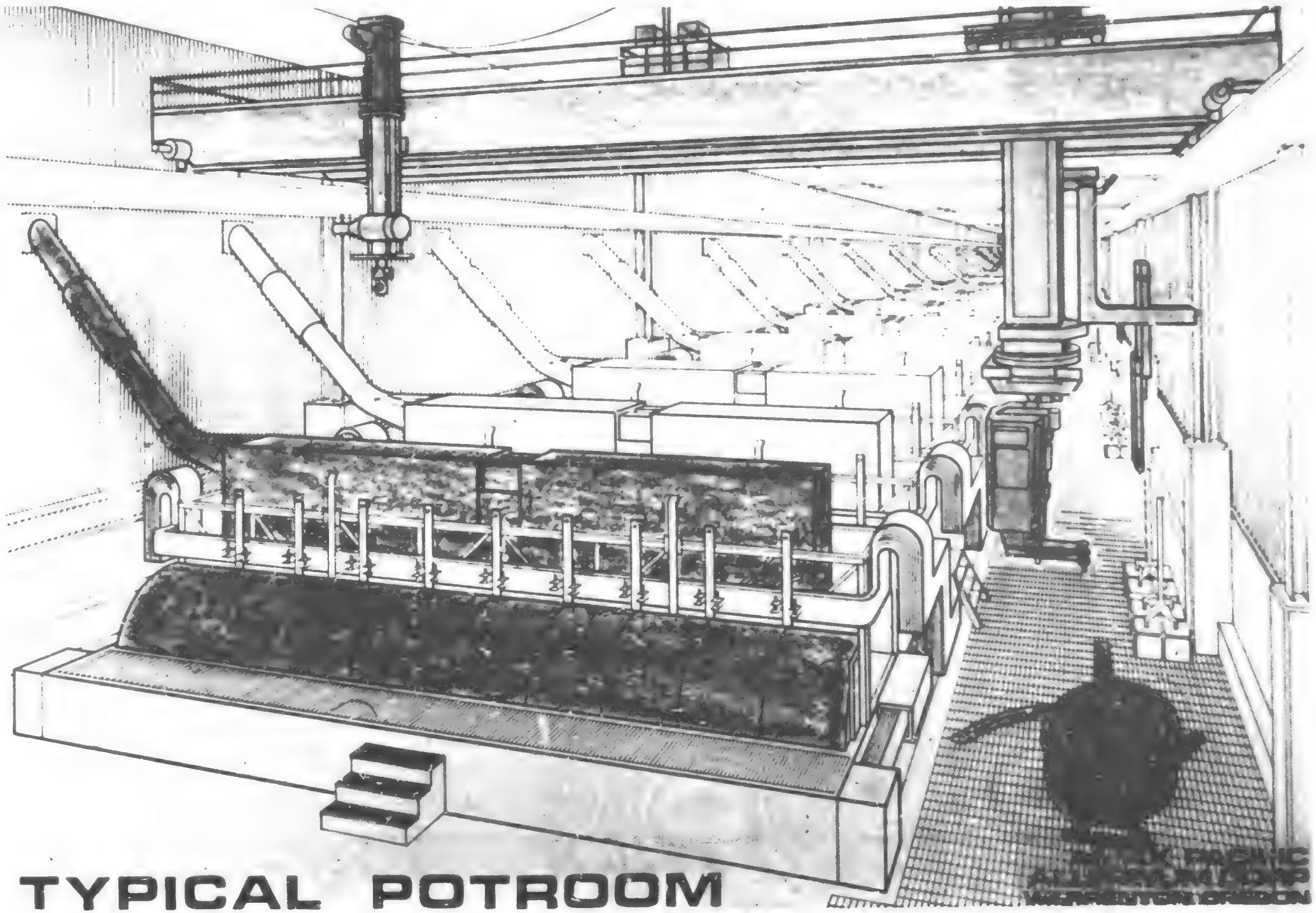
The primary raw material for the alumina reduction process at the proposed plant is alumina, the refined ore input to the process; and carbon materials in the form of petroleum coke and coal tar pitch which comprise the carbon anode materials consumed in the process. The table on page IV-15 lists annual consumption of key raw materials.

The marketable output of the plant is in the form of aluminum ingot. Aluminum ingot will be produced in a variety of alloy compositions and physical shapes to serve the aluminum fabricating industry. There will be no substantial generation of by-products. Some electrolytic materials, cryolite and fluorides, will be recovered from plant control and recovery systems. Such by-products will be recirculated into the process. Some waste materials, waste cathode material, will be shipped from the plant site for recovery processing elsewhere or for direct use in other industries. These items are detailed under "Process Residuals."

SCHEMATIC ARRANGEMENT PREBAKE REDUCTION CELL



AMAX PACIFIC ALUMINUM CO.
WARRENTON OREGON



TYPICAL POTROOM

RAW MATERIALS AND CHEMICALS USED
Annual Estimated Material Consumption

Description	Utilization tons/year
Alumina	359,799
Cryolite	1,498
Aluminum Fluoride	3,804
Soda Ash	374
Fluorspar	505
Petroleum Coke 2% S	77,041
Pitch	20,190
Chorine	29.5
Nitrogen	40
Lime	120
Caustic (NaOH)	9
Alloy Materials	Variable
Residual Fuel Oil 1.75% S	6,205,000 gallons/year
Natural Gas	2,000,000 therms/year

The breakdown of annual consumption of fuels between natural gas and fuel oil indicates the maximum anticipated proportion of fuel oil. If natural gas is available in greater quantity, then Amax intends to utilize that fuel to the maximum extent possible.

F. PROCESS RESIDUALS

Emissions to the Air

Emissions generated are comprised of gaseous and particulate escapement from the emission control system. Such escapement includes gaseous F , particulate F , particulate Al_2O_3, water vapor, gaseous CO, CO_2, SO_2 and N_2. Fluoride represents the key contaminant and is subject to effective scrubbing.

The diagrams on pages IV-18, 19, and 20 illustrate the capture and scrubbing concepts for pot emissions, again emphasizing fluoride capture and treatment. The capture of the emission, as illustrated on pages IV-13 and 14, shows a hood over the reduction cell or pot. This enclosing hood is only partially removed from the capture position for only minutes a day when the pot must be serviced. The feeding of the pot is accomplished internally and is computerized. Pot hooding can capture over 98 percent of all pot emissions.

Once the emission is captured, it is "scrubbed" in a reactor where the gaseous fluoride is chemisorbed to alumina being fed into the system. This fluoride-coated alumina and the fluoride particulate, is collected in a bag house. This so-called "dry" system is now well tested and can function at a 99 percent efficiency.

Pot emissions which escape into the potroom atmosphere are treated by wet scrubbing. Fans will exhaust potroom air and deliver it through water sprays into a chamber where reaction takes place between water and fluoride ions and where particulate may be collected by the spray. The fluoride capture efficiency of a wet scrubbing system will vary with the concentration of fluorides in the potroom building air. Tests performed for the Warrenton plant indicate a minimum fluoride capture efficiency of 75 percent. A schematic arrangement of this secondary air control is shown on page IV-20.

Solid Waste

The solid waste generated and collected in the plant operation is disposed of by recycling to plant processes and sale to others, with the balance being disposed of at the Clatsop County landfill.

Liquid Waste

The liquid waste material generated and retained at the plant site is process water used for cooling water and any

wet-type emission control systems. All such process water is treated and rendered suitable for reuse within the plant process water system. There will be no discharge of process water from the plant site.

Sewage from the Amax plant will be discharged to the Warrenton system and treated in the municipal treatment plant. The city has an existing secondary treatment facility which will accommodate the additional sanitary waste from the aluminum plant and from the growth that this plant will generate in the Warrenton area.

Storm water runoff caused by rainfall on the plant site will be collected and held in a retention pond. During periods of heavy rainfall, overflow from this retention pond will enter natural drainage and reach the Skipanon River. Some of the water collected in the settling pond will be used in the plant for process water, thereby reducing the demand for city water.

Noise

Noise control technology will be applied in plant design to minimize and control noise.

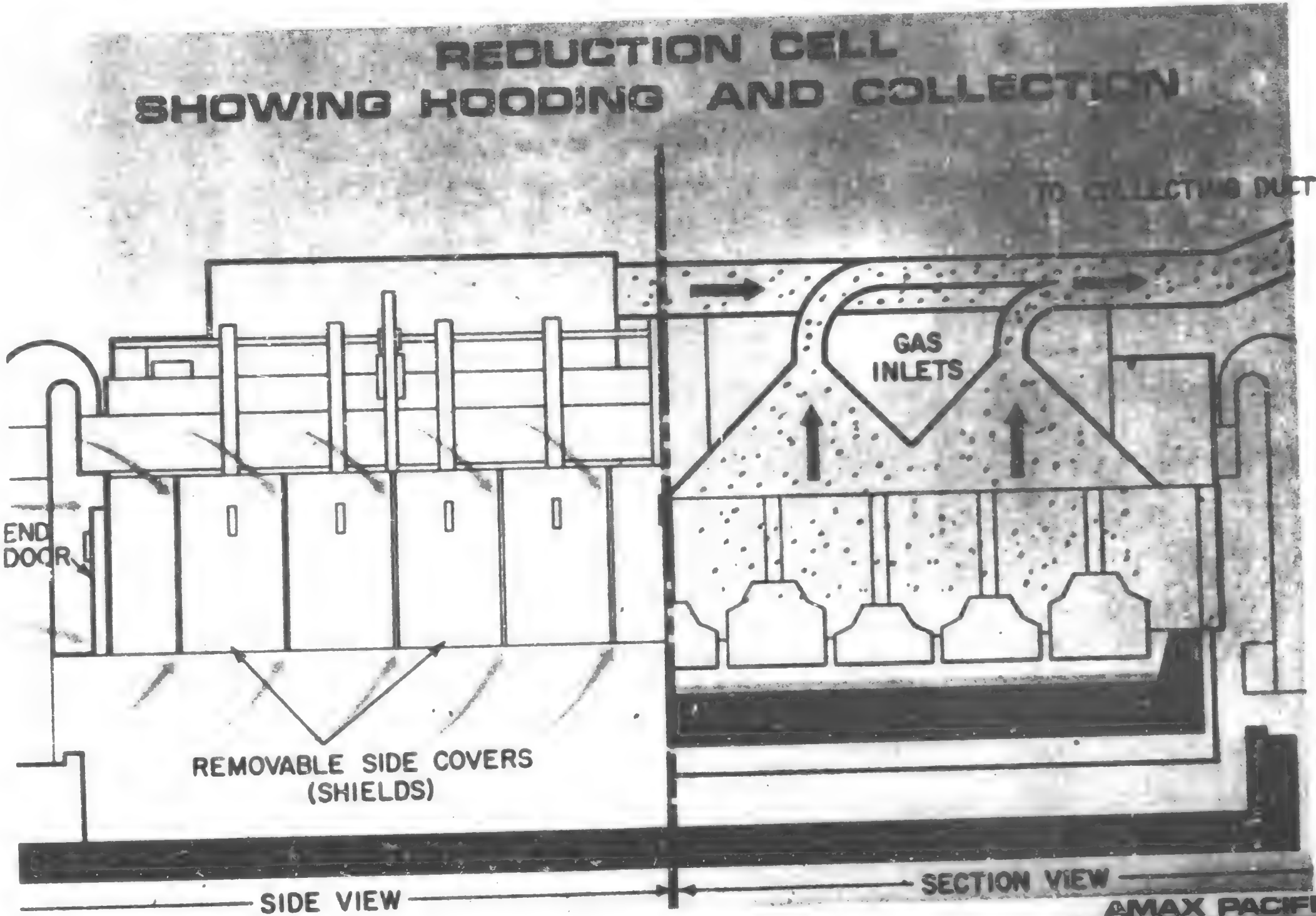
The consulting firm of Bolt, Beranek & Newman have been engaged to assist in the application of noise control technology during the engineering, design, and equipment purchasing phases of this project.

Heat

Heat will be generated and dissipated from the plant through stacks and ventilators. Thermal emissions are discussed in Appendix P.

The tables on pages IV-21 and 22 detail the plant refuse by description, source, quantity, and disposal method.

REDUCTION CELL
SHOWING HOODING AND COLLECTION



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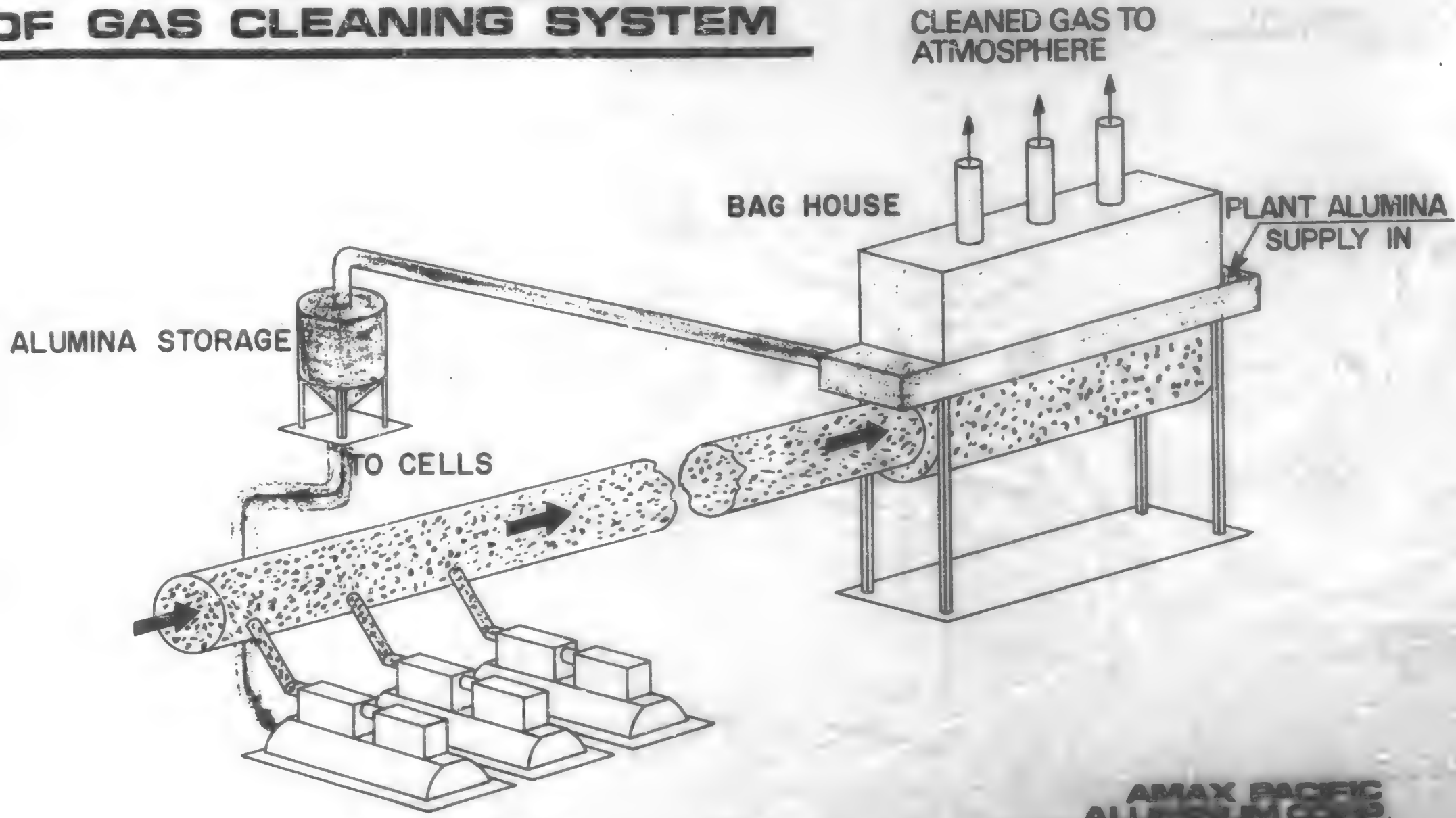
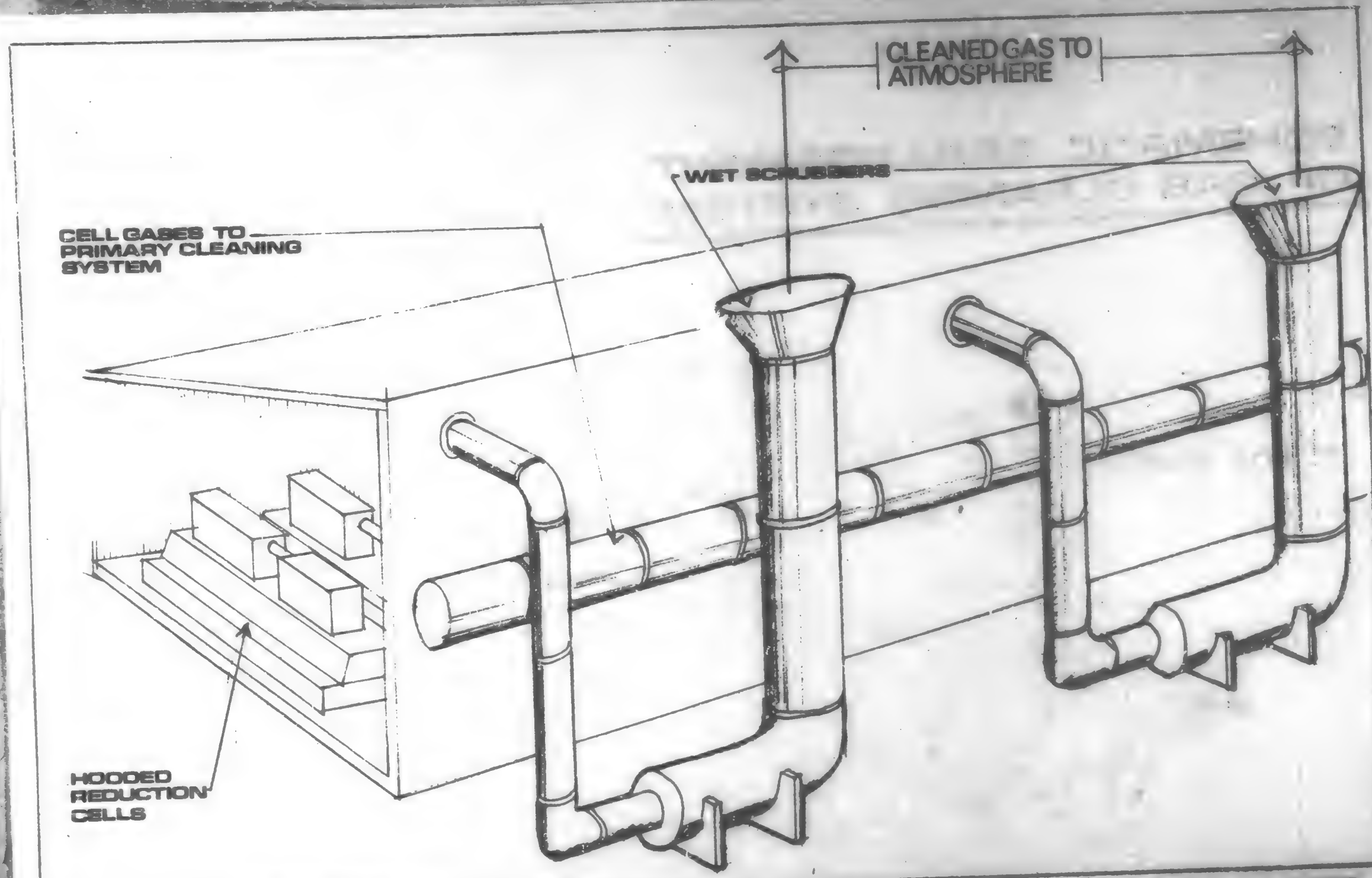
WARRENTON OREGON

IV - 18

SCHEMATIC ARRANGEMENT OF GAS CLEANING SYSTEM



AMAX PACIFIC ALUMINUM CO.
WARRENTON OREGON



SCHEMATIC ARRANGEMENT
SECONDARY GAS CLEANING SYSTEM

AMAX PACIFIC ALUMINUM CO.
WARRENTON OREGON

G. PLANT REFUSE DISPOSAL METHODS

Type of Waste	Material	Source	Quantity	Disposal Method
Liquid	Oil	Automotive & General Plant Maintenance	18,000 gal/yr	Sale to Refiners
Solid	Scrap Steel	Maintenance & General Plant Waste	385 tons/yr	Sale to Dealer
Solid	Waste-Cathode Material	Spent Pot Lining	7,000 tons/yr	Temporary On-Site Enclosed Storage for Outside Sales
Solid	Dross AL_2O_3 + Al	Cast House	2,300 tons/yr	Outside Sales
Solid	Inert Sludge--35% Solids, CaF_2, $CaCO_3$, $CaSO_4$	Plant Water Treatment	250 tons/yr Dry Solids	County Landfill
Solid	Refractory Material Brick	Bake Ovens Cast House Refractory waste from bake ovens will commence in second year of operation - from cast house, not before fifth year in operation	1,960 tons/yr	County Landfill
Solid	Induction Furnace Slag, $FeO-FeSiO_2$	Anode Rodding	30 tons/yr	County Landfill
Collected Air Contaminants	Al_2O_3 + Other Oxides Fine Particulate	Baghouse -- Dross Treatment-- Metal Service	510 tons/yr	Outside Sales

Plant Refuse Disposal Methods, cont.

Type of Waste	Material	Source	Quantity	Disposal Method
Collected Air Contaminants	Carbon, Iron Oxide Fluorides Fine Particulate	Baghouse-- Anode Rodding	650 tons/yr	County Landfill
Collected Air Contaminants	Pitch Fumes Pitch Particulate	Filter Pitch Storage & Mixers	150 tons/yr	County Landfill
Solid	Paper	General Plant	150 tons/yr	Bale & Market
Solid	General Trash	General Plant	50 tons/yr	County Landfill
Solid	Wood	Misc. Packing Material-Warehouse	200 tons/yr	Free to Employees
Liquid	Sanitary Sewage	Plant Sanitary Water System	30,000 gal/day	Sewage Treatment Plant - City of Warrenton

H. GENERAL TIMETABLE

The proposed primary aluminum plant is scheduled for startup in December 1976. The first potline will be ready at this time, with the second potline to start up in July 1977.

Construction of the plant site in 1974 will be limited to soil preparation work and maintenance of site drainage.

Major construction will commence with the spring of 1975 and continue through to startup of the plant.

Litigation by individuals or groups opposing construction of the proposed plant could delay the start of construction.

Such delay must be considered in connection with all planning efforts for the plant and community services.

V

V - EXISTING ENVIRONMENTAL SETTING

A. Existing natural factors

Physiography and structures V-1

Water regimen V-4

Climate V-8

Meterology V-9

Air Quality V-9

The Biotic Community V-12

B. Existing and Planned Man-Made Features V-26

Community values V-26

Community character V-29

Population characteristics V-33

Regional land use V-35

Residential V-38

Land use V-42

Education V-49

Recreation V-52

Hospitals and County Health V-55

County civic, administrative and institutional facilities V-57

Cultural and historic facilities . . . V-58

Public safety V-59

Welfare programs V-60

Utilities V-62

Transportation systems V-68

Economy V-76

Local governments V-86

V. EXISTING ENVIRONMENTAL SETTING

A. EXISTING NATURAL FACTORS

Physiography and Structures

The 726-acre proposed aluminum plant site is presently in a partially cleared and graded state. About five years ago the site was clear-logged in preparation for industrial development use. The marketable timber species taken were hemlock, alder, spruce and cedar--mostly third growth. Following the logging activity, a 240-acre parcel was rough-graded. Approximately 2,100,000 yards of material were moved during grading, the last of which was completed in September, 1969. Since that date the site has been in a bare condition. Adequate ditching to drain the cleared 240-acre portion is functioning at this time, using the natural contours of the site. A perimeter road surrounds the eastern 120 acres of the cleared area.

Physiographically the Clatsop County area is composed of two distinct provinces: (1) the Coast Range mountains; and (2) the footslopes, fans, alluvial terraces, and bottomlands that occur along the narrow coastal plain and the Columbia River.

Practically all the soils in the Coastal Range are formed in colluvium and residuum developed by weathering of the underlying bedrock under humid climatic conditions. Differences in the soils are primarily related to differences in the environment and underlying rocks. Soils on the sedimentary strata commonly are greyish-brown to reddish-brown, sandy loams to clays. Soils on the volcanic rocks are red to brown lateritic loams to clay loams.

Soil series associations common to the mountainous terrain are: (1) Goble; (2) Cascade; (3) Olympic; (4) Melbourne; (5) Klickitat; (6) Hembre; (7) Astoria; and (8) Melby. See the following General Soils Evaluation on page V-3 for description of the position, characteristics and interpretations of these soils.

The second physiographic province of the study area is the footslopes, fans, and bottomlands along the narrow

coastal plains and the Columbia River. The narrow coastal plains are underlaid by unconsolidated to semi-consolidated sand, silt, and gravel. The Columbia River bottomlands were formed by constant deposition of suspended silts and sands. These alluvial soils can be broadly classified into soils series: (1) Sauvie; (2) Pilchuck; (3) Netarts; (4) Westport; (5) Coquille; and (6) Knappa. The General Soils Evaluation on page V-3 details the position, soil characteristics, and interpretation of these soils.

The site is underlain to various depths by a Marine sedimentary rock which is dated back to the Miocene Epoch and consists of a siltstone known as the Astoria Formation. The upper few feet of the siltstone is generally weathered, fractured, and friable when handled. The deeper siltstone becomes less weathered and usually less fractured but remains brittle and friable. The fractured nature of the siltstone is attributed to regional crustal deformation. The natural topography in the area to some extent reflects the change of the siltstone surface. The siltstone is overlain by stiff clay, and clay silts with considerable amounts of decayed vegetation and wood. In areas recently graded fills exist to depths of 0 to approximately 35 feet. The thickness of the natural soil cover overlying the siltstone prior to grading was approximately 10 to 60 feet in the vicinity of the site. The siltstone surface varies from elevation 44 to deeper than elevation 0 in various portions of the site. Due to the impermeable nature of the materials at the site, groundwater elevations have not been established.

The specific soils at the site are of clay and fine silt composition, with silt stone present at various depths. During wet conditions, water tends to pool on the soil surface and drainage and percolation is poor. This type of soil is subject to deterioration when exposed to natural elements, is corrosive and not suited to commercial farming. The poor percolation qualities also severely limit urban or commercial use and could somewhat restrict recreational use. In their natural state the site soils have limited structure bearing capability. Because of the physiography of the graded site, there is no danger of slides or flooding. The area is accessible over ballast roads. There are no known valuable minerals on the plant site.

GENERAL SOILS EVALUATION

SOIL CLASSIFICATION (series or soil group)	POSITION ON THE LANDSCAPE Land Use & Land Form Association	SOIL CHARACTERISTICS Texture & Parent Material	SOIL CHARACTERISTICS Average Profile Depth & Bedrock	INTERPRETATIONS Drainage	INTERPRETATIONS Limitations	INTERPRETATIONS Capability Dryland	INTERPRETATIONS Capability Irrigated
GOBLE	Forest land on uplands, ridgetops, and side slopes	Texture - silt loam Parent Material - loess	30-40" over foragipan over igneous rock, volcanic rock, and pumice	Good and moderately good	Erosion	III e, IV e VI e VII e	
CASCADE	Cropland (pasture, hay) dryland on uplands, ridgetops, and side slopes	Texture - silt loam Parent Material - loess	20-40" over foragepan over igneous rock, volcanic ash, and pumice	Somewhat poor	Erosion and wetness	III e IV e VI e VII e	
SAUVIE	Forest land on flood plains	Texture - silty clay loam Parent Material - alluvium	60" + over alluvium over igneous rock, volcanic ash, and pumice	Moderate, highly good and also somewhat poor	Floods; seasonal high water table	II w	II w
PILCHUCK	Cropland (hay, pasture, silage, mint, specialty crops, and cereals) 20% irrigated on flood plains	Texture - loamy fine sand Parent Material - alluvium	60" + over alluvium over igneous rock, volcanic ash, and pumice	Moderate, good and also somewhat poor	Floods, sandy profile	VI w	
OLYMPIC	Forest land on uplands and mountain slopes	Texture - clay loam Parent Material - basic igneous rock	40-72" over igneous rock	Good	Erosion; acid soil	III e IV e VI e VIII e	
MELBOURNE	Cropland (hay, pasture, and silage) mostly dryland on uplands	Texture - clay loam Parent Material sedimentary rock (shale & sandstone	60" + over sedimentary rock (shale & sandstone)	Good	Erosion; acid soil	IV e VI e VII e	
ASTORIA	Forest land on uplands	Texture - silt loam and silty clay loam Parent Material - sedimentary rock (sandstone on shale)	40-100" over bedrock which is the same as parent material	Good	Erosion; acid soil	IV e VI e VII e	
MELBY	Cropland (hay and pasture) dryland on uplands	Texture - silt loam Patent Material - sedimentary rock (siltstone [illegible] sandstone)	40-60" over bedrock which is the same as parent material	Good	Erosion; acid soil	III e IV e VI e VII e	
KLICKITAT	Forest land on uplands (steep slopes)	Texture - loam Parent Material - basic igneous rock	20-40" over bedrock which is the same as parent material	Good	Erosion moderately deep over bedrock	VII e	
HEMBRE	Forest land on uplands (ridgetops and steep slopes)	Texture - gravelly loam and silt loam Parent Material - basic igneous rock	30-60" over bedrock which is the same as parent material	Good	Erosion; acid soil	III e IV e VI e VII e	
NETARTS	Forest land on terraces (duned)	Texture - loamy sand Parent Material - beach sand	60" +	Excessive	Dryness; coarse texture	VI e VII e	
WESTPORT	Cropland on terraces (duned)	Texture - sandy loam Parent Material - sand	60" +	Excessive	Erosion; sandy profile; acid	IV e VII e	
COQUILLE	Croplands (cereals, hay, and pasture) dryland (bulbs, berries, hay, and pasture) irrigated on alluvial deposits	Texture silt loam Parent Material - alluvium	60" + over alluvium	Very poor	Tidal overflows; wetness; acid soils	III w IV w	
KNAPPA	Croplands (cereals, hay, and pasture) dryland (bulbs, berries hay, and pasture) irrigated on alluvial terraces	Texture - silt loam Parent Material - alluvium	60" + over alluvium	Good	Erosion; acid soil	II c II e III e	II c II e III e

Source: Bonneville Power Administration Impact Assessment

Water Regimen

Over 100 inches of precipitation falls annually along the southwest and northeast axes of the Coast Range, on rocks that are relatively impervious, particularly the marine sedimentary rocks and most of the older volcanic and intrusive rocks. In addition to the imperviousness of the rocks, the slope of the Coast Range Mountains are steep; the waters rapidly runoff, drain to the rivers and streams and ultimately to the ocean. Despite the high precipitation in the County, relatively little of the water that falls as rain and snow in the mountains infiltrates into the ground to sustain stream flows in the periods of relatively little precipitation in late summer and early fall. During the winter, streams flood due to the rapid runoff; during the summer, streams have low flow because of limited groundwater storage.

The major groundwater storage areas of the county are the alluvial deposits of the lowland areas, the sand dune areas of Clatsop Plains, and the Miocene lava rock in the northeast corner of the county. For the rest of the county, the relative imperviousness of the rocks indicates slight potential for groundwater other than adequacy for single-family domestic well supply. On the sand dunes of the Clatsop Plains, about one-half of the 76 inches of annual precipitation is estimated to recharge the groundwater retained by pervious base sands. According to recent geological reports on the groundwater aquifer at Clatsop Plains, the dune sands are highly permeable and extend to depths of over 150 feet below sea level. The water table follows the surface topography with the seasonal high generally within 6 feet of the ground surface. Discharge of the Clatsop Plains groundwater is principally through beach line seeps and infiltration into a downwarp of layered lava rock where a considerable quantity is stored in the pervious breccia material in the interbeds. This groundwater is reportedly under artesian pressure. To date, few wells have been drilled in this area, and its full potential is not known.

The crest of the Coast Range extends in a northerly direction through Clatsop County and turns northeast near the Columbia River. The highest peaks, which make up the major drainage divide of the county, extend in a northeasterly line diagonally across the middle of the county. The principal drainage of the county thus occurs in two general directions. Southeast of the divide, the Nehalem River System flows in a southwesterly direction to discharge in the Pacific Ocean at Nehalem Bay in

Tillamook County; northwest of the divide, the majority of the larger streams, including the Youngs and Lewis and Clark rivers, flow northwest as tributaries of the Columbia. Of the larger streams flowing in a northwesterly direction, only the Necanicum River and Elk Creek discharge at the Coast directly into the Pacific.

Clatsop County has seven major watershed areas. Commencing at the east edge of the county, these watershed areas are as follows:

1) Knappa Area Watershed--comprised of Plympton Creek Gnat Creek, Blind Slough, Big Creek, Bear Creek and the John Day River--all draining into the Columbia River.

2) Youngs River Watershed--including the Youngs, Walluski, and Klaskanine rivers and their tributaries empty into Youngs Bay.

3) Lewis and Clark River Watershed--empties into Youngs Bay.

4) Clatsop Plains Watershed--has surface drainage through the Skipanon River and Neacoxie Creek with major groundwater drainage through beach seeps and underflow along the shore from Gearhart to Clatsop Spit.

5) Necanicum River Watershed--discharges to the Pacific Ocean between Seaside and Gearhart.

6) Elk Creek Watershed--drains into the Pacific at Cannon Beach.

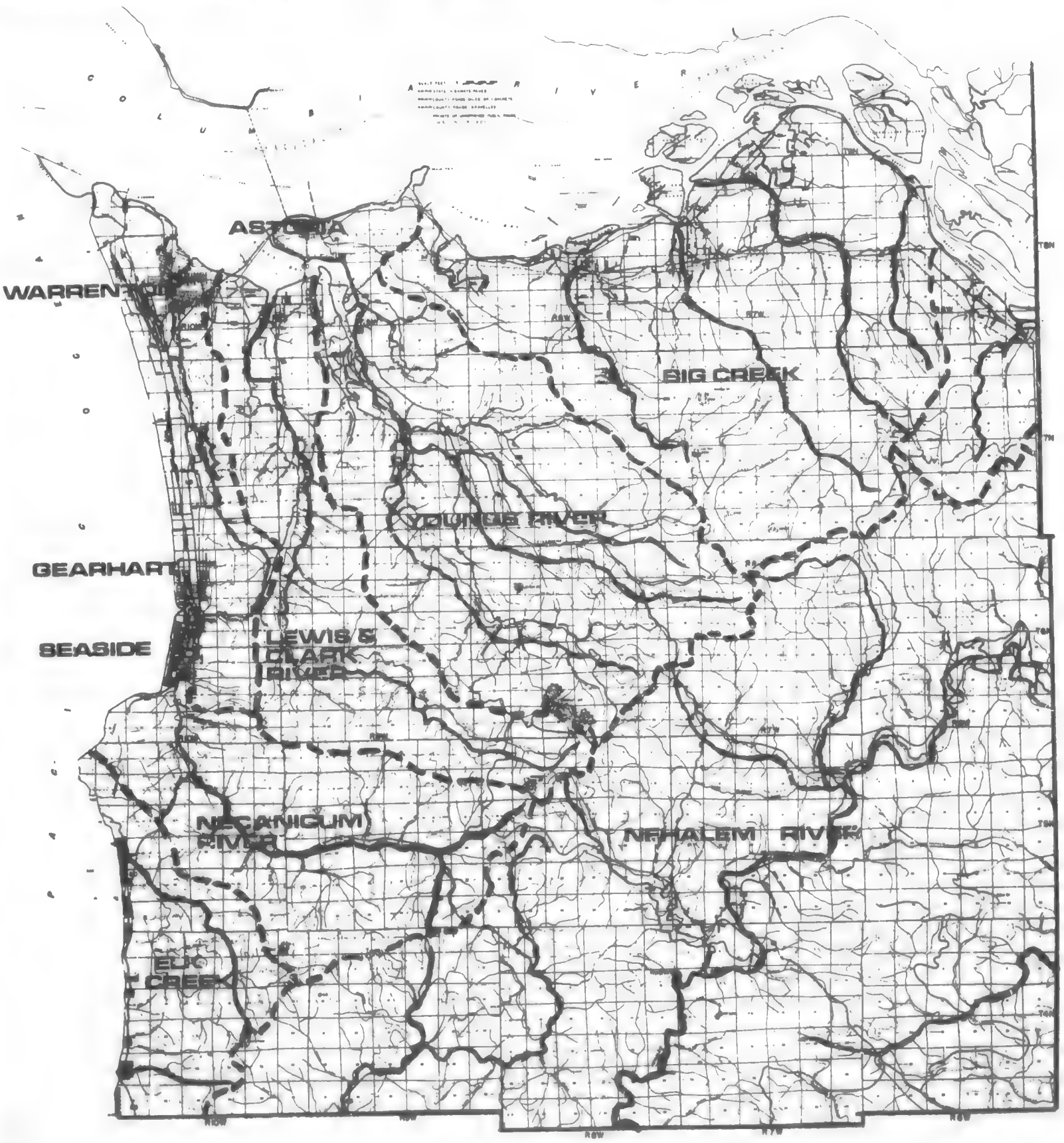
7) Nehalem River Watershed--drains the southeast portion of the county, discharging into the Pacific in Tillamook County.

At the present time, there are no recording stream gauges operating in the county. As a result, stream flows have had to be estimated by correlation and the record adjusted to the stream mouths. Very low stream flow occurs during July, August and September, due to the fact that snowfall in the Coast Range is not sufficient to materially affect the spring run-off, and groundwater storage is limited due to the general imperviousness of the upland rocks. Peak flows occur during December, January and February, reflecting the heavy precipitation in the winter months following saturation of the ground after the fall rains.

Approximately 36 miles of the western boundary of Clatsop County is bordered by the Pacific Ocean. The Columbia River estuary extends along the entire north portion of the county.

The map on page V-7 illustrates the watershed boundaries and major rivers and creeks in Clatsop County.

Much of the data used in the above discussion of water regimen was obtained from Carl E. Green & Associates of Portland, Oregon. This firm reported on the water supply facts and outlook for Clatsop County in 1968.



CLATSOP COUNTY GENERALIZED HYDROLOGY

WATERSHED BOUNDARIES
MAJOR RIVERS & CREEKS

AMAX PACIFIC ALUMINUM CORP
WARRENTON OREGON

Climate

Clatsop County has a perennially verdant landscape hemmed by rather low mountains on the north, east, and south. On the west it is open to the Pacific Ocean.

The climate is generally healthful, except for dampness. Heat waves are uncommon and usually brief. Soil leaching necessitates supplementary mineral diets for both animals and plants. The rain-washed atmosphere gives a clean, fresh appearance to the countryside.

When air temperature in the area falls below water temperatures, fog forms. However, ceilings and visibilities generally improve by midday. During the summer months sea breezes commonly blow up the river by noon and stop the dirunal rise in temperature. In winter, cold air may funnel down the Columbia from the interior.

Weather hazards occasionally occur. Even with moderate surface velocities, wind and turbulence at 800 feet may be severe. Heavy rains inundate lowlands; and high tides aggravated by gales may push seawater across highways and up beaches. Rains may cause earthslides, mostly in highway cuts. Storms may fell trees onto vehicles, or break power and phone lines.

Average temperatures for the area range from a January low of 40.7 degrees to an August high of 61.0.degrees. High temperatures in the middle 80's are routinely reported during the late summer. The average yearly mean temperature is 51 degrees.

During 1973 rainfall ranged from a low July monthly average of 0.07 inches to a high December monthly average of 15.75 inches. Annual rainfall for 1973 was 65.15 inches, which is below the 20-year average of 71.13 inches.

Extreme cold weather conditions, snowfall, ice storms, silver thaw, and extended cold are rare conditions in Clatsop County.

Meteorology

The National Climatic Center has prepared an analysis of the Astoria Airport meteorological data which relates the Pasquill stability classes to the wind speed and direction distributions. This analysis covers the years 1960-1964 and, because the airport is less than 2 miles northeast of the proposed smelter site and the terrain is relatively flat, meteorological data should be readily transferable to the proposed plant site.

Resultant area and site wind speeds, in terms of percent frequency of occurrence, are shown in the following tabulation.

Wind Speed (in knots)	Occurrence Frequency (%)
0 - 3	12.240
4 - 6	31.942
7 - 10	31.384
11 - 16	19.333
17 - 21	3.900
21	1.201

As the table on page V-10 indicates, neutral and slightly stable air dispersion conditions are most frequent. Stability Class D (neutral) accounts for 69.9 percent of air dispersion and Class E (slightly stable and unstable) accounts for 21.1 percent of air dispersion conditions; 63.3 percent of air dispersion conditions occur in the 4 to 10-knot range.

Wind direction figures are depicted on page V-11. Prevailing area winds are shown to be NNW in the summer months, and easterly during the winter.

Air Quality

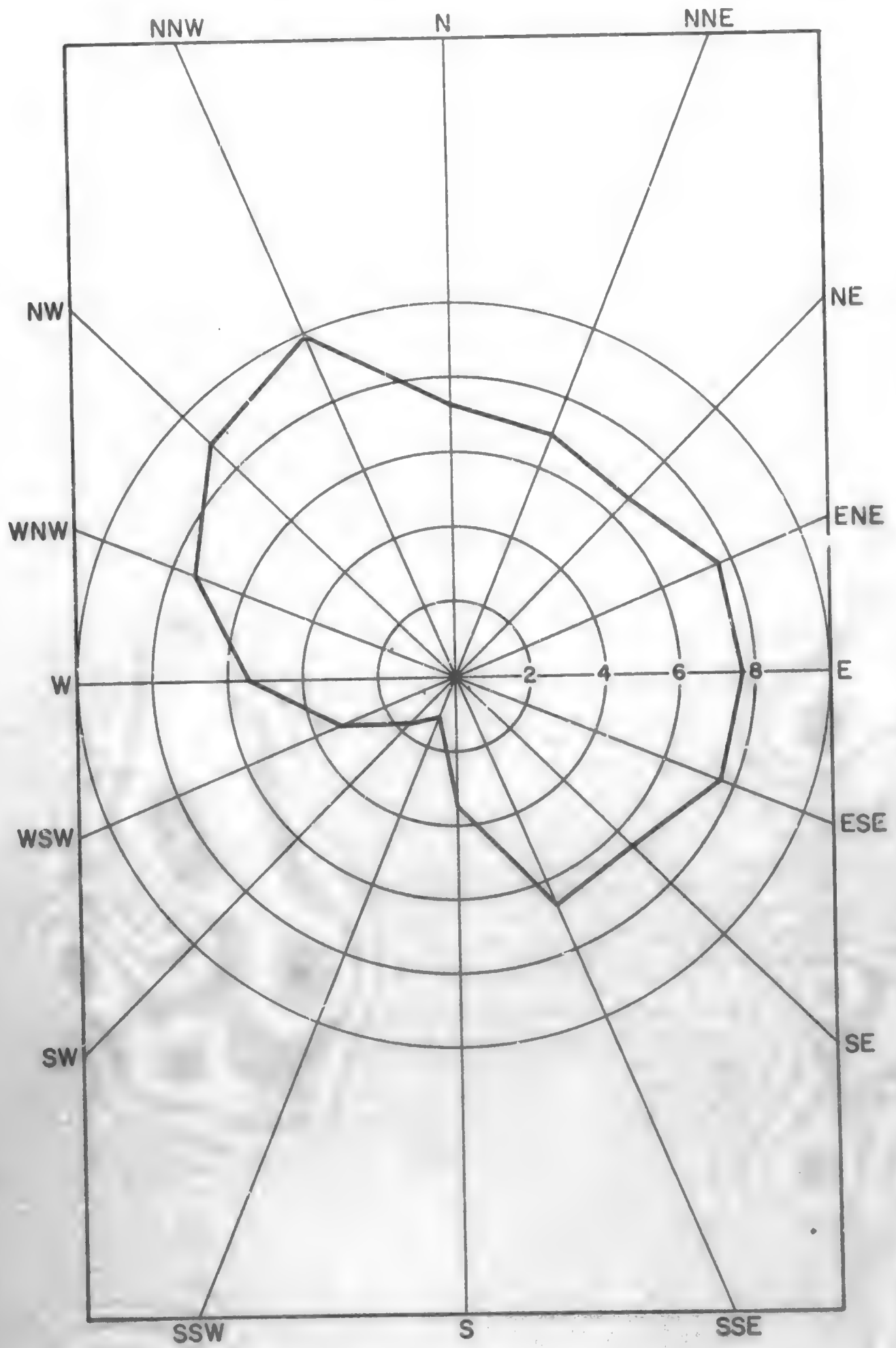
There is no recent data representing existing air quality in the area of the Warrenton plant site except for those measurements taken by Amax at a monitoring station at the plant site and five dust-bucket stations in the vicinity of the plant site.

These air quality measurements show an existing fluoride level below the sensitivity of the analytical equipment (less than 0.08 micrograms/cubic meter);particulate and sulphate fallout measurements in dust-buckets have been approximately 4.5 and 0.65 grams/square meter/month, respectively. Monthly average SO_2 levels have been averaging 5.0 micrograms/cubic meter as measured by a Philips continuous analyzer.

ANNUAL FREQUENCY OF OCCURRENCE OF PASQUILL
STABILITY CLASS BY WIND SPEED

Stability Class	Frequency of Occurrence (percent)						
	Wind Speed (kt)						
	0-3	4-6	7-10	11-16	17-21	> 21	Total
A	0.027	0.023	0.000	0.000	0.000	0.000	0.050
B	0.696	0.598	0.648	0.000	0.000	0.000	1.942
C	0.840	1.553	3.786	0.758	0.078	0.000	7.015
D	5,866	17.438	23.009	18.575	3.822	1.201	69.911
E	4.811	12.330	3.941	0.000	0.000	0.000	21.082
TOTAL	12.240	31.942	31.334	19.333	3.900	1.201	100.000

*The atmospheric dispersion conditions represented by the Pasquill stability categories are: A - extremely unstable, B - unstable, C - slightly unstable, D - neutral, E - slightly stable, F - extremely unstable (combined with E in the table)



Annual frequency distribution of wind direction at the Astoria (Clatsop County) Airport (directions are directions toward which the wind is blowing). Percentage frequency scale is shown at the right center of the figure.

The Biotic Community

Biotic communities can be defined as groups of one or more populations of plants and animals in a common spatial arrangement, or organisms which are limited to a given geographical area due to their individual requirements for life. Habitat is defined as the total of environmental conditions and a specific place that is occupied by an organism, population or community.

The two most productive biotic communities in Clatsop County are the Coastal Salt Marsh Community and the Columbia River Estuary. The Coastal Salt Marsh Community of Clatsop has over 111 different kinds of plants and animals living in 8,600 acres. The Columbia River Estuary has over 168 different organisms living in its 95,000 acres.

The Columbia River Estuary - An estuary is defined as an arm of the sea at the mouth of a river in which the current of the river meets the tide. In this report the extent of the estuary will be considered as being from the Columbia mouth to River Mile 40. The Columbia River Estuary can also be divided into three sections based on salinity barriers to dominant organisms of each section.

Zone 1 is water with a salinity of about 35 parts per thousand (ppt) and has Calanus sp. as its major copepod; Zone 2 has a salinity of about 20 ppt and has Eurytemora sp. as its major copepod. Zone 3 is essentially fresh water and has Cyclops sp. as its major copepod. Page V-13 illustrates the zone division.

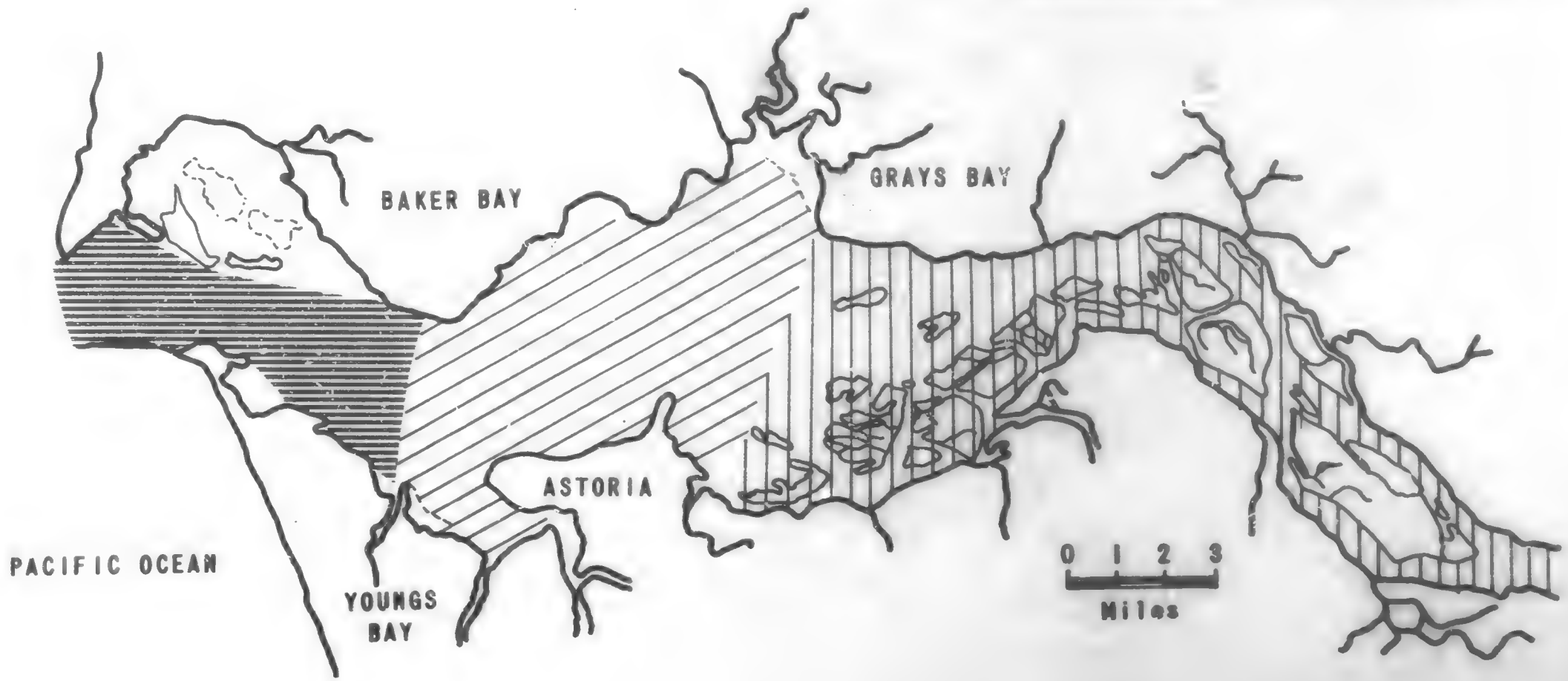
Carl Sims, National Marine Fisheries Service, Hammond, Oregon, believes that the Youngs Bay portion of the Columbia River Estuary is of extreme importance to the total productivity of the estuary. Sims states that the copepod Eurytemora affins occurs abundantly in Youngs Bay and comprises over 90 percent of the planktonic specimens of the bay. This copepod is one of the primary food sources of juvenile salmon, flatfish such as flounder and sole, smelt and anchovy. Salmon must be of a certain size before they leave the river and enter the Pacific Ocean. Those fish which are not large enough remain in the estuary, at Zone 2, until they reach the proper size to continue their migration to the sea. Page V-14 illustrates these feeding zones.

ESTUARY FAUNA-PLANKTON

Major Copepods

Calanus SP.
Eurytemora SP.
Cyclops SP.

Source: Carl Sims U.S.N.M.F.S.*



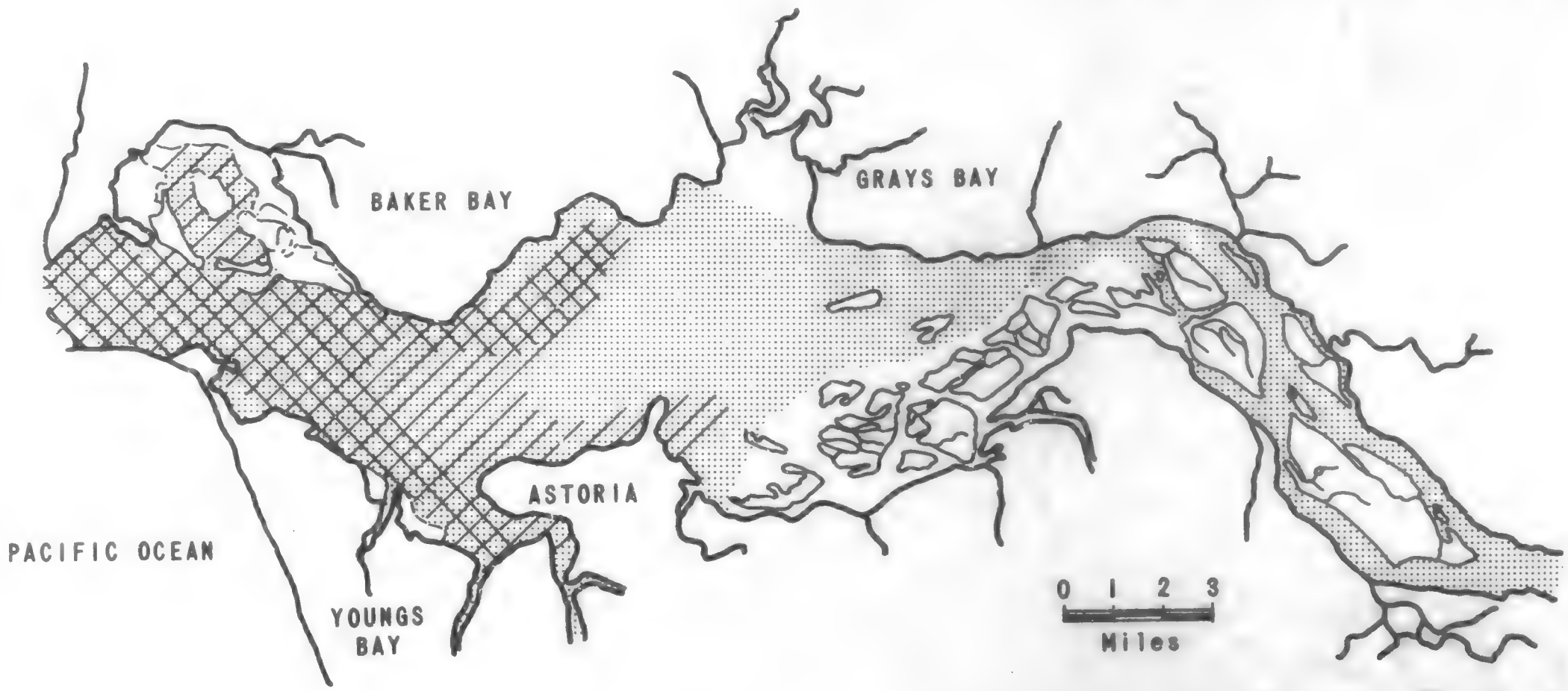
COLUMBIA RIVER ESTUARY

*The indicated distribution of plankton and fish is based on personal observations by Carl Sims, U.S. National Marine Fisheries Service.

ESTUARY FAUNA-FISH

Salmon
Anchovy
Flat Fish

Source: Carl Sims U.S.N.M.F.S.*



COLUMBIA RIVER ESTUARY

*The indicated distribution of plankton and fish is based on personal observations by Carl Sims, U.S. National Marine Fisheries Service.

While fish catch records record all fish unloading in the area whether they were caught in the estuary or at sea, they still have value as an indicator. In 1969 the Columbia River catch of fish and shellfish for Oregon totaled 49,209,900 pounds. Washington in the same year reported a Columbia River catch of 10,414,400 pounds. Page V-16 details catches from 1959-1969.

The Oregon sport catch for 1969 is another indicator of estuary value. In the estuary between the mouth of the Willamette River to Astoria, there were 88,000 angler trips. Landed were 13,883 Chinook salmon, 4,000 Coho salmon, 5,872 Steelhead, 3,308 Cutthroat trout, 1,764 Sturgeon and 160 Shad.

The Columbia River Estuary also provides valuable Dungeness crab fisheries. In 1969, 3,941,500 pounds of crab were harvested in the river. Youngs Bay is important to the Columbia River crab fishery since it is the major rearing area of juvenile crab on the Oregon side of the river. Page V-17 shows the 1959-1969 Dungeness crab landings and page V-18 illustrates shellfish areas in the Columbia mouth estuary.

Coastal Salt Marshes - Major salt marshes are located along the Columbia River Estuary with the largest at Clatsop Spit and smaller areas along the Lewis and Clark and Youngs rivers. The Clatsop Spit marsh is the site of a Great Blue Heron rookery. The salt marshes have value in that they are utilized for hunting of waterfowl. In 1969, figures show that 410 hunters harvested 640 geese and spent 3,070 hunter-days in Clatsop County. The duck harvest for the same year was 20,970 ducks taken by 1,340 hunters who spent 12,570 hunter-days in the county.

The aesthetic value of this type of biotic community is that in a relatively small area, a significant number of bird species can be observed and enjoyed by the public as well as professional ornithologists.

The coastal salt marshes and the Columbia River Estuary is important biotically; no other place in Clatsop County offers as numerous or as varied a selection or organisms.

The Open Coast Sandy Beach Community - The open coast sandy beach community is located west of the proposed plant site. Some 18 miles of sandy beach stretch between the tip of Clatsop Spit and the City of Seaside.

COMPARISON OF OREGON COASTAL LANDINGS OF FISH AND SHELLFISH WITH WASHINGTON AND OREGON COLUMBIA RIVER LANDINGS

Year	Washington - Columbia River		Oregon - Columbia River		Oregon Coastal Landings	
	Pounds (000)	Value ($000)	Pounds (000)	Value ($000)	Pounds (000)	Value ($000)
1959	5,623	$1,038	30,285	$3,945	21,432	$2,450
1960	4,641	1,008	27,503	3,351	21,656	2,704
1961	5,268	1,167	24,312	2,946	26,229	3,574
1962	6,027	1,288	34,643	4,412	26,161	3,420
1963	5,968	1,088	37,141	4,501	24,220	3,177
1964	5,061	1,110	31,353	3,662	25,852	3,367
1965	6,970	1,546	42,062	5,254	27,082	3,560
1966	6,939	1,543	39,488	5,963	35,315	5,203
1967	8,996	2,134	45,225	7,631	46,306	8,652
1968	9,419	1,998	55,503	9,640	38,994	7,050
1969	10,414	2,448	49,209	9,592	38,020	7,407

From: Fisheries Statistics of the U.S. - Digest Numbers 51 - 63

TEN-YEAR DUNGENESS CRAB LANDINGS FOR OREGON

Year	Columbia River		Oregon Coast	
	Pounds (000)	Value ($000)	Pounds (000)	Value ($000)
1959	2,272	$304	5,156	$ 691
1960	2,723	403	6,573	953
1961	1,412	218	7,876	1,260
1962	1,191	238	4,556	888
1963	1,854	387	2,298	482
1964	948	227	2,408	590
1965	1,708	299	5,401	896
1966	2,644	347	7,900	1,053
1967	2,661	433	6,959	1,120
1968	4,309	842	7,041	1,373
1969	3,941	990	6,842	1,665

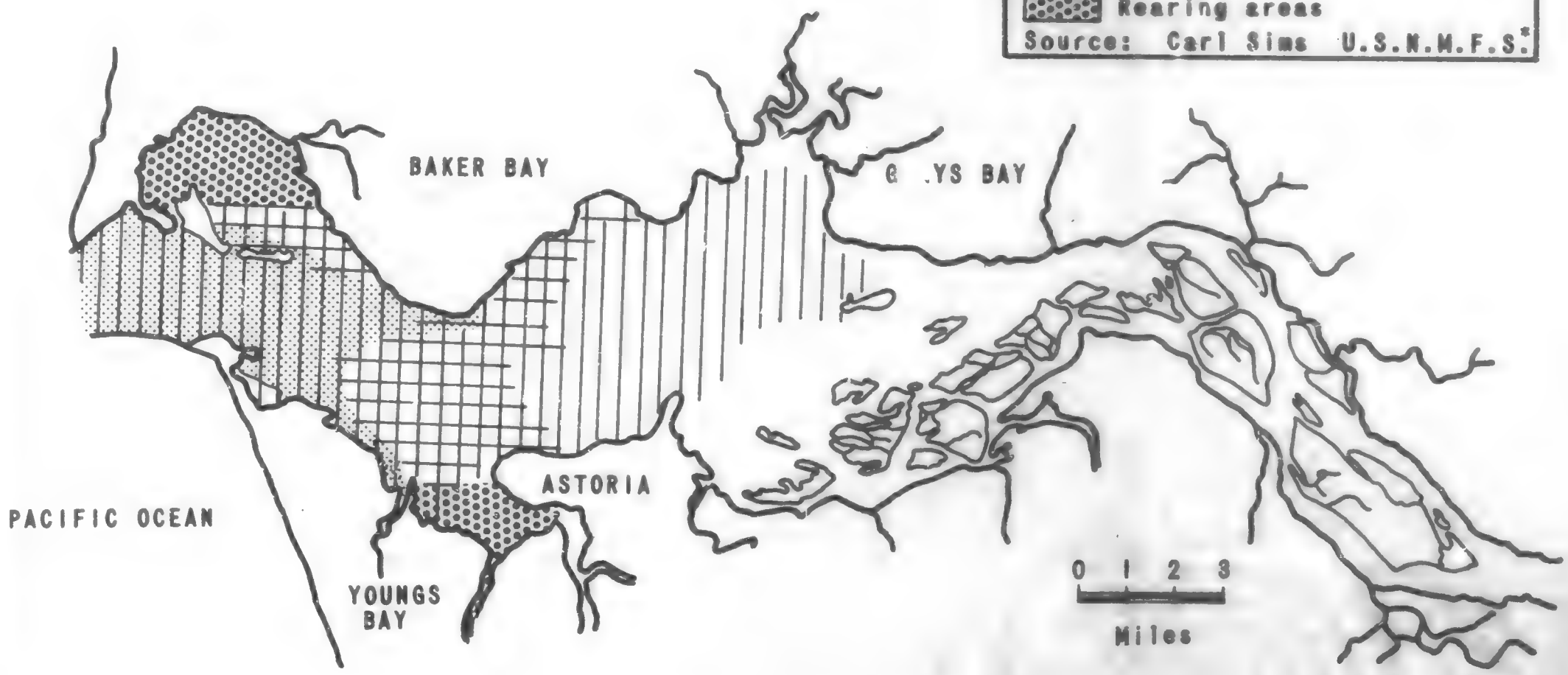
From: Fisheries Statistics of the U.S. - Digest Numbers 51 - 63

ESTUARY FAUNA-SHELLFISH

Dungeness Crab
- Adult
- Juvenile

Shrimp
- Distribution
- Rearing areas

Source: Carl Sims U.S.N.M.F.S.*



COLUMBIA RIVER ESTUARY

*The indicated distribution of plankton and fish is based on personal observations by Carl Sims, U.S. National Marine Fisheries Service.

This biotic community contains the razor clam, an important sport fishery organism. An average of 23,563 pounds of razor clams have been harvested in Oregon during the period 1959-1969. It is estimated that over 90 percent of the razor clams dug in Oregon are taken on Clatsop County beaches. Page V-20 tabulates catches of razor clams from 1959-1969.

Fort Stevens State Park encompasses part of the open coast sandy beach zone as well as part of the shore pine zone. The annual number of visitors to the park approximates 1,500,000 persons.

The Shore Pine Community - The Shore Pine community is located to the west of the plant site and continues in a narrow belt southward along the Oregon coast. The shore pine zone is important in beach stabilization and provides habitat for elk, ruffed grouse, and quail. Furthermore, many of the coastal state parks use the shore pine zone for camp sites and recreational.

Mixed Conifer-Trailing Blackberry Communities - The Mixed Conifer-Trailing Blackberry communities are made up of three separate communities: the Sitka Spruce Community, the Western Hemlock/Douglas Fir Community, and the True Fir Community. Page V-21 provides distribution information on forest vegetation in Clatsop County.

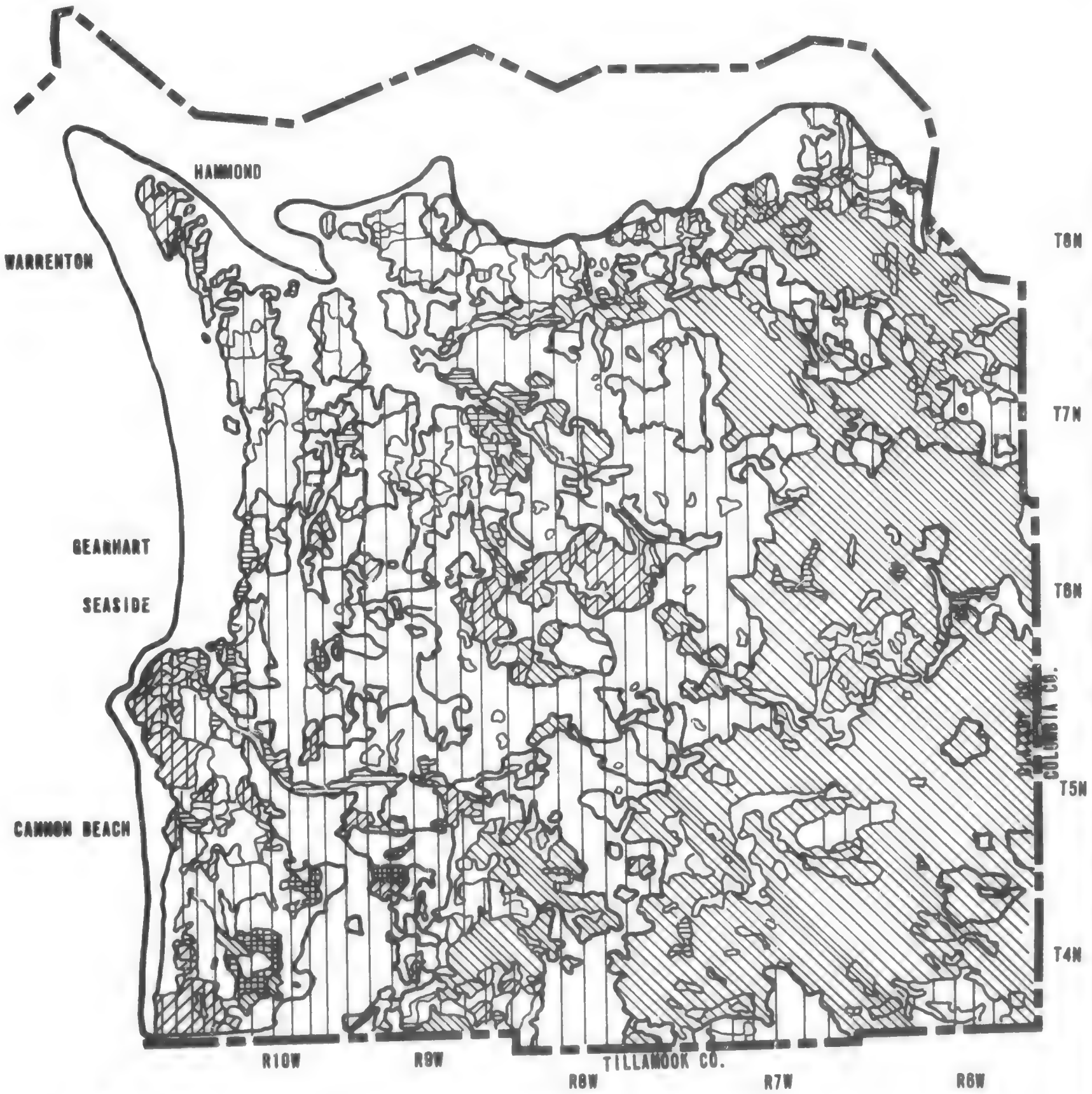
The Sitka Spruce zone stretches in a narrow band from Northern California to Southern Alaska. Generally this zone is confined to the area between the coastal shore pine zone and elevations of 50 to 2,000 feet. It provides excellent habitat for deer, elk, and a variety of birds.

The largest community in the county is the Western Hemlock/Douglas Fir Community. The map on page V-22 related to the forest vegetation map on page V-21 clearly illustrates that the majority of Clatsop County is in this biotic community. The central and western portions of the county are in the Western Hemlock zone with the eastern portion in the Douglas Fir zone. Douglas Fir is not very tolerant of shade and, if natural conditions were to prevail, they would be replaced by Western Hemlock which is the climax species in this zone. However, due to logging activities by forest product companies, climax is never achieved. Other than logging, the major economic value of this zone is in hunting. Latest

TEN-YEAR RAZOR CLAM CATCH RECORDS FOR OREGON BEACHES

Year	Pounds	Value
1959	18,700	$ 6,682
1960	20,300	9,651
1961	16,100	7,700
1962	11,200	4,780
1963	9,900	4,708
1964	14,600	8,800
1965	32,700	23,370
1966	34,800	24,500
1967	51,500	35,000
1968	38,800	27,000
1969	10,600	14,000

From: Fisheries Statistics of the U.S. - Digest Numbers 51 - 63



NORTH

0 1 2 3 4 5 6

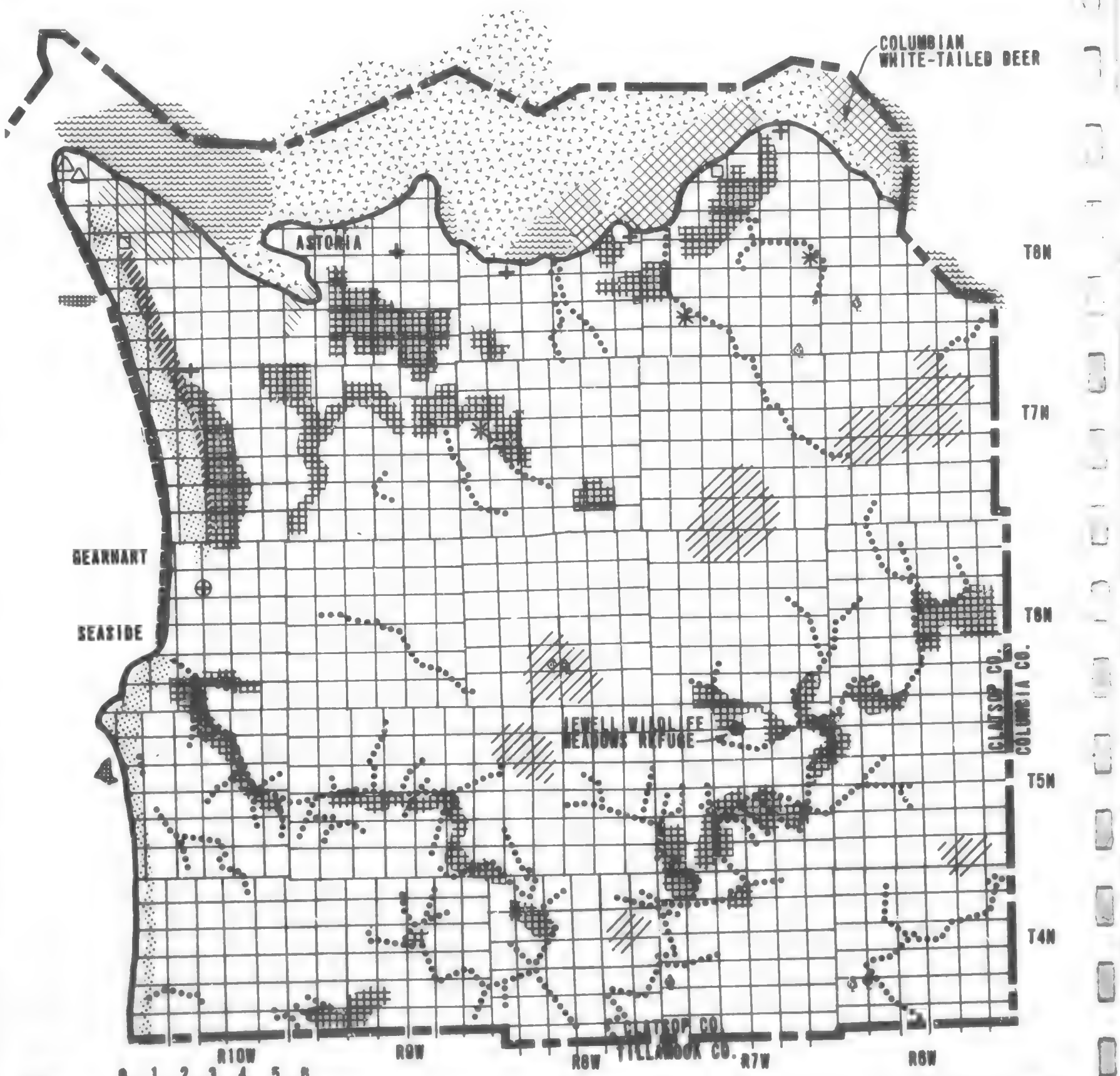
MILES

BASE MAP: OREGON STATE WATER RESOURCES BOARD

- SITKA SPRUCE
- WESTERN HEMLOCK
- DOUGLAS FIR
- TRUE FIR
- HARDWOODS (Red Alder & Bigleaf Maple)
- OPEN AREAS

CLATSOP COUNTY FOREST VEGETATION DISTRIBUTION

SOURCE: SPECIES DISTRIBUTION. COUNTY FOREST SURVEY, 1952 BY PAC NW FOREST & RANGE EXP STA U.S.F.S. OPEN AREAS. 1971 AIRPHOTOS INTERPRETED BY MICHAEL DONLEY, PhD.



CLATSOP COUNTY FISH AND GAME HABITATS

SOURCE: OREGON STATE GAME COMMISSION & FISH COMMISSION OF OREGON

estimates by the Oregon State Game Commission show approximately 14,000 elk in the Clatsop Game Unit, which includes most of Clatsop County and small portions of Columbia County to the east and Tillamook County to the south. This Game Unit is estimated to contain an average of 22.6 elk and 2.6 blacktailed deer per square mile. At this concentration, the area has the highest number of elk in western Oregon. An average of about 8,000 people hunt elk in this Unit annually and harvest about 1,000 bulls.

The elk populations of this area serve functions other than as game animals. First, they serve as a reservoir of breeding stock to transplant to other areas to expand their range. In the past three years the State Game Commission has captured 161 animals which have been released in other elk ranges in Western Oregon. The second form of utilization is an aesthetic or nonconsumptive use. Wherever elk appear along public roads, people stop to watch them. An outstanding example is the Jewell Wildlife Meadows Refuge, where an estimated 50,000 visitors came in 1972 to view and photograph elk. Some of these people came from hundreds of miles away.

The True Fir Community - is located in the western and central portions of the county and supports the same type of game animals as the Mixed Conifer-Trailing Blackberry zone.

Inland Marsh Community - 4,600 acres of inland marsh are found in Clatsop County. The majority of this marsh land is located to the west of the proposed plant site, extending in a narrow band from the City of Warrenton almost to the City of Gearhart. The Inland Marsh Community, Mixed Conifer-Trailing Blackberry Community and the lakes and reservoir habitats provide a minor economic impact to the county through production of fur-bearing mammals. In 1971-1972 trappers reports show 36 trappers in Clatsop County trapped a total of 2,038 fur-bearing mammals. These pelts had a value, based on the 1971-1972 average pelt price for each particular mammal, of $12,557.

The Eelgrass Flat Community - The Eelgrass Flat Community in Clatsop County is located in the Columbia River Estuary. Because of its location, it may be considered part of the estuary community and not a separate entity.

Eelgrass is important in the conversion of a former ocean region into wet meadowland and, ultimately, into

dry land. The matted roots prevent the sand from being carried away by wind and tide. Organisms which may be found here are the Dungeness crab and Pectins (or scallops). Eelgrass is also the primary food of the migratory black brant goose.

Coastal Islands and Reef Community - The Coastal Island and Reef Community is limited to about 5 acres in Clatsop County. This biotic community provides homes and resting places for seals and sea lions as well as shore birds. The major area of this type is located south of Tillamook Head.

Estuarine Study - Oregon State University is currently, under Amax sponsorship, engaged in a study of the physical, chemical, and biological attributes of Youngs Bay, Oregon.

The objectives of this eighteen-month study are:

Physical:

Determination of the seasonal variation of the physical parameters (water quality, tidal fluctuations, and streamflows) affecting Youngs Bay;

determination of the flushing rate of Youngs Bay;

investigation of circulation patterns in Youngs Bay, and the possible effect of different flow rates of the Columbia River upon circulation patterns;

characterization of basic sediment properties and patterns of movement and deposition of the Youngs Bay system.

Chemical:

Provide a baseline record for levels of fluoride and selected metals in Youngs Bay sediments;

identification of areas within Youngs Bay which presently function as heavy metal traps;

determination of the recent depositional history of sediments in Youngs Bay.

Biological:

Provide quantitative description of the biota of Youngs Bay, including: an annotated checklist of animals and plants;

estimates of biota abundance in various areas;

estimates of seasonal changes in abundance and species composition.

To determine effects of fluoride introduction onto selected estuarine organisms, including:

determination of the levels of fluoride in the marine ecosystem that will prove toxic to important sport and commercial species or important species in their food chains;

examination of sub-lethal effects that fluorides added to the marine ecosystem will have on sport, commercial or food chain species;

determination of the effect of fluorides on the rate of carbon fixation in phytoplankton.

B. EXISTING AND PLANNED MAN-MADE FEATURES

Community Values

Clatsop County contains an area of 843 square miles, is bounded by the Columbia River on the north, Columbia County on the east, Tillamook County on the south and the Pacific Ocean on the west.

The area has a rich historical heritage. The Lewis and Clark expedition opened the Northwest Territory. This expedition terminated on the shores of the Lewis and Clark River, where a temporary settlement, named Fort Clatsop after the Clatsop Indians, was built.

In 1811 the Astor Fur Company of New York sent men by ship to establish a fur trading center at the mouth of the Columbia River. This group crossed the Columbia River bar in March of 1811 and anchored in the bay. Within a year, they were joined by other fur company groups that had journeyed overland. The community of Astoria, Oregon's oldest city, was thus established.

Clatsop County was established in 1844 by the Provisionary Government, 15 years before Oregon attained statehood. The County Seat was moved from Lexington (no longer in existence) to Astoria in 1854.

The first Post Office west of the Rocky Mountains was established in Astoria in 1847. By 1850 considerable area development was under way. Lumber mills, dairy and beef farms, and fishing were emerging as local industries. A steady influx of settlers from the Scandinavian countries and the Far East aided in area population growth.

Fort Stevens, a U. S. Army artillery installation of the south shore of the Columbia entrance, waxed and waned from the lats 1880's to the 1950's and brought a number of new residents to Clatsop County, first as soldiers. The fort area has been converted to recreational use.

Preserved historical sites include:

1) Fort Clatsop, where Lewis and Clark wintered in 1805, now a National Memorial.

2) Fort Astoria, the original Astoria settlement.

3) Fort Stevens, once a coastal defense post, now a popular camping and recreational area.

4) Clatsop County Historical Museum, housed in the four-story Flavel Mansion.

5) Historic Homes, eleven residences constructed between 1863 and 1889 which have been restored and marked.

6) Columbia Maritime Museum, which recreates the extensive marine history of the area. In connection with this museum, a Maritime Park is being constructed which will feature retired Columbia River Lightship No. 88.

7) Astor Column, crowning Coxcomb Hill in Astoria, which commemorates the westward sweep of civilization with paintings on its exterior surface.

The early to mid-1900's saw Clatsop shift from the leading Oregon County in volume of harvested timber to a fairly barren territory. Initially, steam engines and skidways moved giant firs down to several large mills along the Columbia, then, the forest depleted and logging concerns hard hit by the Depression, thousands of logged off and burned acres were deeded to the County in wholesale, worthless blocks. Out of this situation emerged large ownerships by corporate timber concerns and a special arrangement with the Oregon State Forestry Department for ownership and management of some 150,000 acres of county land. Today, state and industrial forest management is directed to perpetual yields of pulpwood, poles, second growth sawlogs, and hardwoods.

Farming developed along the open coastal strips. Diked bottom lands, cleared of large Spruce, provided acreage for dairy, forage, general livestock and poultry production. At farming's peak in the county, there were 20,000 acres of worked land. Today four or five full-time farms remain, which according to the 1970 census provide total income for 28 persons.

Fishing has been an economic factor in this region since Indian days. Scandinavian immigrants, attracted by the variety and abundance of fish, both offshore and in the

area's rivers, established the fish processing industry early in this century, beginning an economic and social pattern that has changed little since. According to the Oregon Department of Human Resources, fish processing employs 1,200 people on the average, or about 11 percent of the county labor force. Peak season employment is approximately 1,700. As many as 3,000 fishermen, many part-time, and 1,600 boats are involved in fishing in the area during a given year.

Many religious orders are represented in the county. Lutheran and Baptist are predominant with ten Lutheran and nine Baptist churches in the county. In all, there are 25 churches within a 6-mile radius of the Warrenton site and 51 churches in the county. The first Presbyterian church west of the Mississippi was built on Clatsop Plains in 1846. This chapel, still used today, is located 10 miles south of Astoria on Highway No. 101.

Community Character

Clatsop County has always been, and is, a pioneering kind of place, where the people make do with what they have and move ahead because of personal grit and determination.

There is more independence noticeable here than in urban or even other rural areas. The average person, a mature Caucasian of Scandinavian descent, does things for himself as much as possible. He lives in and repairs his own house, maintains and repairs his own car or truck, grows a portion of his own food, sews some of his clothes, has a wardrobe made up principally of work clothes, and tries to have a business of his own, even if only part-time, as in the case of farmers and gillnet fishermen.

The people are more vital and robust than usual, due largely to the outdoors nature of available employment and the fact that the work is very physical. Recreation is an outdoor function here too. Residents have great respect for the scenic grandeur and spaciousness of the county. The coast and river shore are spectacularly beautiful natural areas, and so far are unspoiled and uncrowded enough to allow the people to enjoy them in relative privacy.

There seems to be a general belief among the people in their historical worth and significance in the scheme of things. Legends of the Columbia River and the woods abound. This isn't surprising; the area is one of the richest, historically, in the Northwest.

Hand in hand with the robust nature and history of the people goes a noticeable social idealism. Stability and solidarity of family and educational process are considered extremely worthy goals here.

All these characteristics are deeply engrained and applicable almost community-wide. They have been developed over decades of involvement in lumbering, fishing and farming, pursuits which have always been the staff here, pursuits which require a large measure of purpose and commitment to toil. To some degree the Clatsop County people register as stoics--laboring contentedly in sometimes less than hospitable surroundings. Because they are happy; they are satisfied.

But life in Clatsop County is having its balance upset. The old employment sources are petering out. Lumbering, despite claims of reforestation and permanence, is not what it once was. Corporate organization and automation are claiming more and more jobs, reducing the role of the individual. Fishing, both on the Columbia and offshore, has become the victim of resource overexploitation and has faded as a viable local industry. Once canneries lined the shores of the river, the fish were huge, and the boats were many; now two or three corporate canneries remain, the boats are few and skeletons of abandoned processing buildings are falling into the river. Dairy and beef farming can no longer support itself on small independent farms. Farm operators have to take outside jobs to pay for their farming activity. Very few full-time farmers remain in Clatsop County.

Other income sources have dried up, too. The vacating of Tongue Point by the Navy in 1953 hurt the local economy badly, and, in spite of the Job Corps' use of the facility, it has never really recovered. Log exporting, a real boom for the county port district in recent years, is tapering off as lumber costs soar in this country and legislators press for wood export limitation.

General unemployment ranges from 6 to 8 percent and higher, fluctuating sharply during the year due to the seasonal nature of remaining lumber and fishing industry employment. Only 10 percent of the employed labor force is under 25; most youth, educated to a professional or trained to a skill, have to move away to find work. Youthful workers remaining are largely low-income laborers--not prospects for enlightened community leadership in the future.

There is a significant aging factor present. Over 14 percent of area residents are over 65 and on fixed incomes, and approximately 27 percent of the area's total population is over 55 years of age. This is the highest percentage in the state and it is growing. Community facilities and housing are also of the older order; little building renovation or construction, except small projects as Knappa, Warrenton and Cullaby Lake, have been started here in the past 10 years. Average age of the dwellings in Clatsop County, according to the 1970 census, is 33 years and inspections indicate nearly 25 percent of area housing is unsound by code standards.

The downtown business district of Astoria, the county seat, does not give the impression of prosperity, growth or faith in the future. Many storefronts along the main street are empty and in poor repair. The large hotel building, biggest in the town, is vacant. Product variety and availability is limited. Seaside, the second largest town in the county, is a tourist resort and recreation area, with extremely seasonal business activity and a large retired population.

Transportation--air, bus, rail, etc.--is minimal because there is little market for it. Clatsop County is away from business and product distribution centers, and, since the people seek to be self-sufficient, a condition of near isolation is created.

The tourist industry, viewed in recent years as a possible deliverer of the county from its slump, is beginning to provoke some second, unfavorable looks. Since this area is a destination, the dollars spent here are for small incidental expenses. Major gear-up or transport purchases are not usually made here. In addition, the influx of people and vehicles requires additional road care, police and other services which are expensive for the county to provide. The most important thing, though, is the tourists' lack of commitment to the area. They are here to visit, even if they visit often enough to have a house on the west shore, and are not greatly concerned with the operation or fortunes of the area as long as their vacation place remains unaffected. The county's attempted turn to tourism then, has resulted in its actually losing some direction by virtue of dilution of interest in properly guiding it.

The local people are concerned about these problems and some related social ones, like the high incidence of alcoholism, divorce and suicide. They know things aren't as they used to be, that something must be done to restore equilibrium, purpose and identity to the area; but they are very concerned that they make the right move in working to correct the situation. If and when the old pattern is changed, they want to make sure that it is changed properly, and they're trying to find out what "properly" is.

The people want the good things they have known--the uncrowded, unhurried pace of life; the safe, secure, country-casual atmosphere; the glorious scenery and wide open free spaces--to remain. They are confused and uncertain how to accomplish this and still provide for economic stimulation that is obviously necessary.

This confusion has been fanned by delays and uncertainties in industrial proposals dating back to 1966, and by pollution control problems at some existing area industrial installations. The county people as a result are extremely suspicious of new industrial proposals, and active local environmental protection groups have been formed.

To summarize, Clatsop County is a pioneering place, where hard physical work in lumbering, fishing and farming has been a way of life for over a hundred years. Residents, though happy with their life style, realize their area is becoming dilapidated and run down due to economic instability and insecurity.

Consultation

In the fall of 1973 Amax evaluated the existing draft of the environmental report and concluded that further input and independent impact analysis would be a beneficial supplement to the work generated by the company.

Accordingly, the firm of Bull, Field, Volkmann and Stockwell was engaged to re-examine existing services in the county to analyze the impact of the plant on the community. This consultant firm would also study plans for the proposed plant and assist in plant-siting, landscaping, architecture and general aesthetics of the plant site.

Bull, Field, Volkmann and Stockwell enlisted other consultant firms to assist in field work, analysis, and presentation of final reports:

DeLeuw Cather & Co. - Traffic
Lord & Associates - Economics
Sedway/Cooke - Housing & Community Value
Royston, Hanamoto, Beck & Abey - Landscape Architects

Consultants' reports, comprising two volumes, are included as appendice volumes to this Environmental Impact Assessment Report.

Volume I - COMMUNITY IMPACT ANALYSIS

Volume II - MASTER DEVELOPMENT PLAN

Population Characteristics

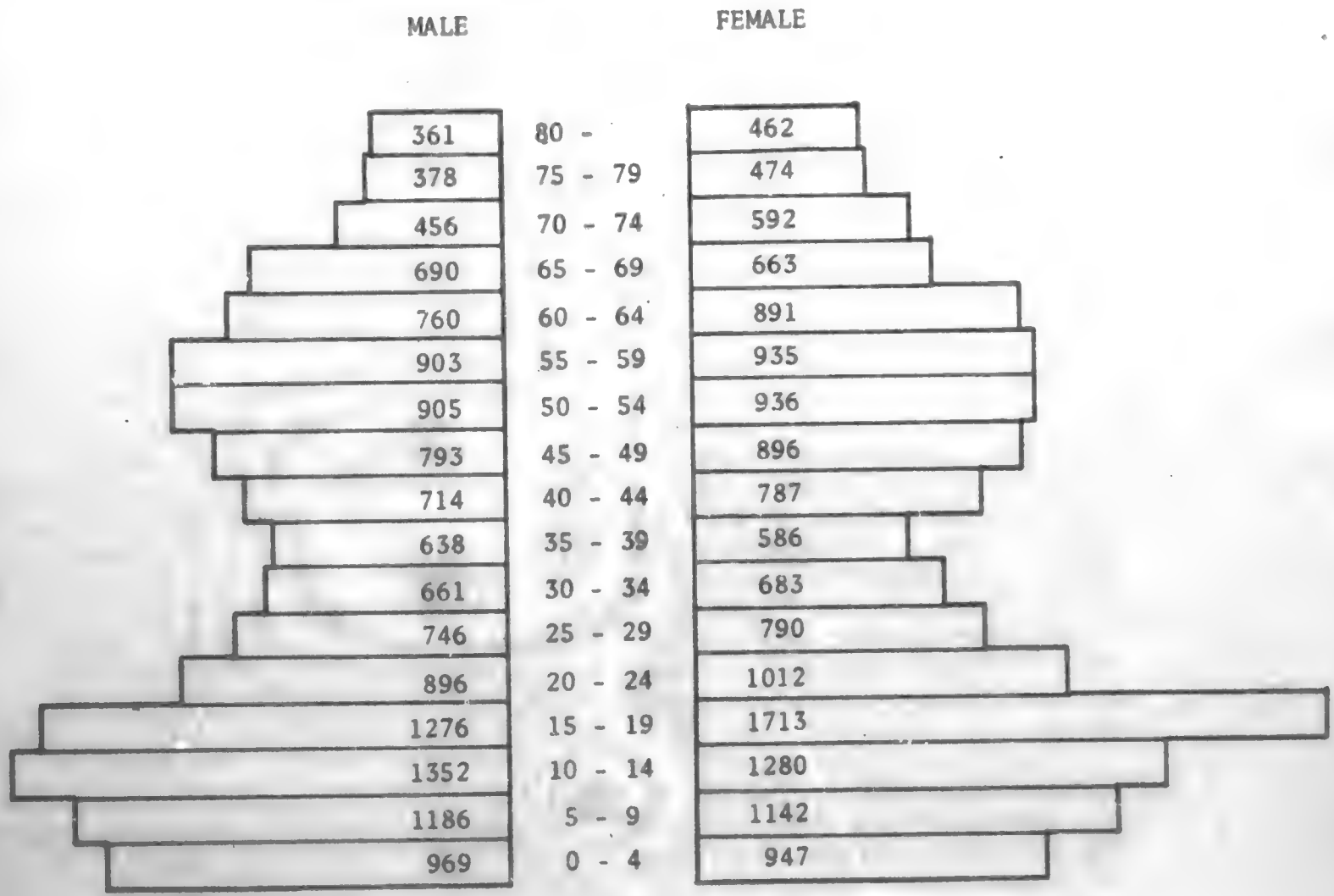
Clatsop County's trended population, in total and by area is shown in the following table:

Year	Astoria	Seaside	Warrenton	Other	Total County	County % + -
1900	8,381		-	4,193	12,765	Base Year
1910	9,599	1,270	339	4,898	16,106	+26.2%
1920	14,027	1,802	730	6,471	23,030	+43.0%
1930	10,349	1,565	683	8,527	21,124	- 8.3%
1940	10,389	2,902	1,365	10,041	24,697	+16.9%
1950	12,331	3,886	1,896	12,663	30,776	+24.6%
1960	11,239	3,877	1,717	10,547	27,380	-11.0%
1970	10,244	4,402	1,825	12,002	28,473	+ 4.0%

The age-sex pyramid for the county on page V-34 shows a large proportion of the population in the age group, 0-19 years. The 20-59 years group is smaller, indicating that young people at the prime income earning years move to areas offering greater opportunities for education and employment. The population in the 60 years and over group reflects the area's attraction for retired persons. Median age of Clatsop County residents is 33.5 years. Urban areas, such as Portland and its suburbs, attract the young and as such have comparably younger populations. Washington County has a median age of 26 years, Clackamas 28 years, and Multnomah 30 years. Thus, it is safe to say Clatsop County is subject to an out-migration of the young. As a result fertility ratios are lower; those who leave seeking better opportunity make up the bulk of the age group with the highest fertility rates.

Current population studies indicate that in-migration, not new births, will account for most of the projected population increases in the study area. Tourists and retirees are examples. Eventually, the in-migration trend will establish the need for more service oriented industries, which in turn will provide some stimulus for continued in-migration.

CLATSOP COUNTY
AGE-SEX PYRAMID



Source: 1970 Census
C.T.I.C. 1972

Regional Land Use

The general land use character of Clatsop County can be described as scattered, small, urban development--except for the City of Astoria--within a largely natural environment of forest, pasture lands, river estuaries, coastal wetlands and sand dunes.

Much of the areas in the natural environment category cannot be built on because of steep topography, marshy soils, unstable sand dunes and public ownership.

The larger areas of public ownership in the region--federal, state and county--include:

Fort Stevens Military Reservation

Camp Rilea Military Reservation

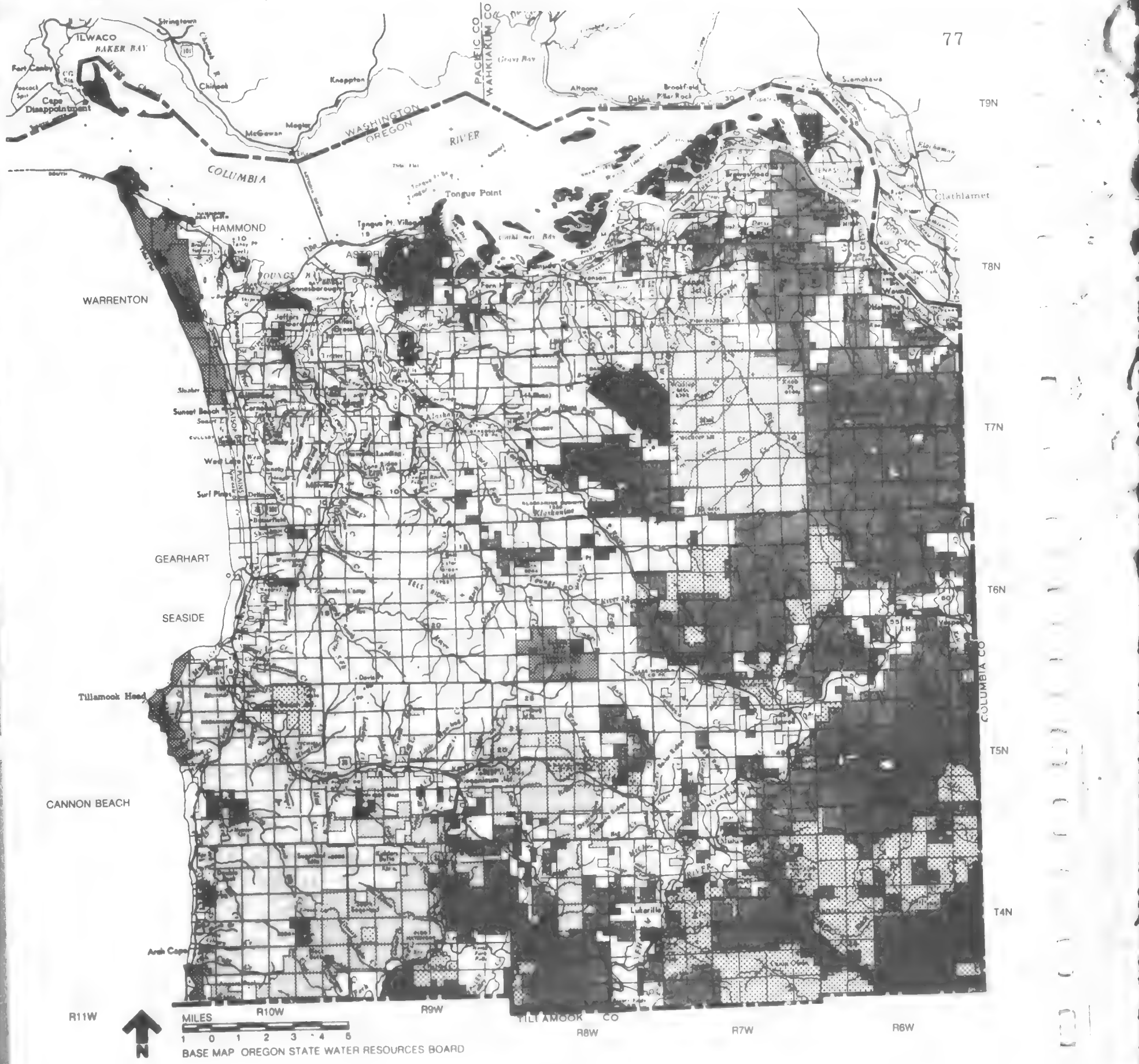
Fort Stevens State Park

Tongue Point Coast Guard Station & Job Corps Center

Clatsop County Airport

Within the region is the City of Astoria, approximate population 11,000, located about 4 miles northeast of the project site. This city contains a majority of the urban activities in the region. The City of Warrenton, population 1,800, covers a largely undeveloped area between Youngs Bay and the Pacific Ocean just north of the project site. The small, incorporated town of Hammond, population 500, lies about 5 miles north of the AMAX project site. The small community of Gearhart, population 431, lies along the ocean 9 miles south of the AMAX site. The City of Seaside is located just south of Gearhart. It is the second largest incorporated city in the county with a population of 2,510. Seaside and Gearhart are oriented heavily to the tourist industry. Although tourism plays an important role in their economies, Astoria, Warrenton and Hammond are not principally tourist-oriented communities.

Pages V-36 and 37 illustrate land ownership and the general land use of the county.



CLATSOP COUNTY LAND OWNERSHIP 1972

SOURCE U S D A & CLATSOP TILLAMOOK INTERGOVERNMENTAL COUNCIL

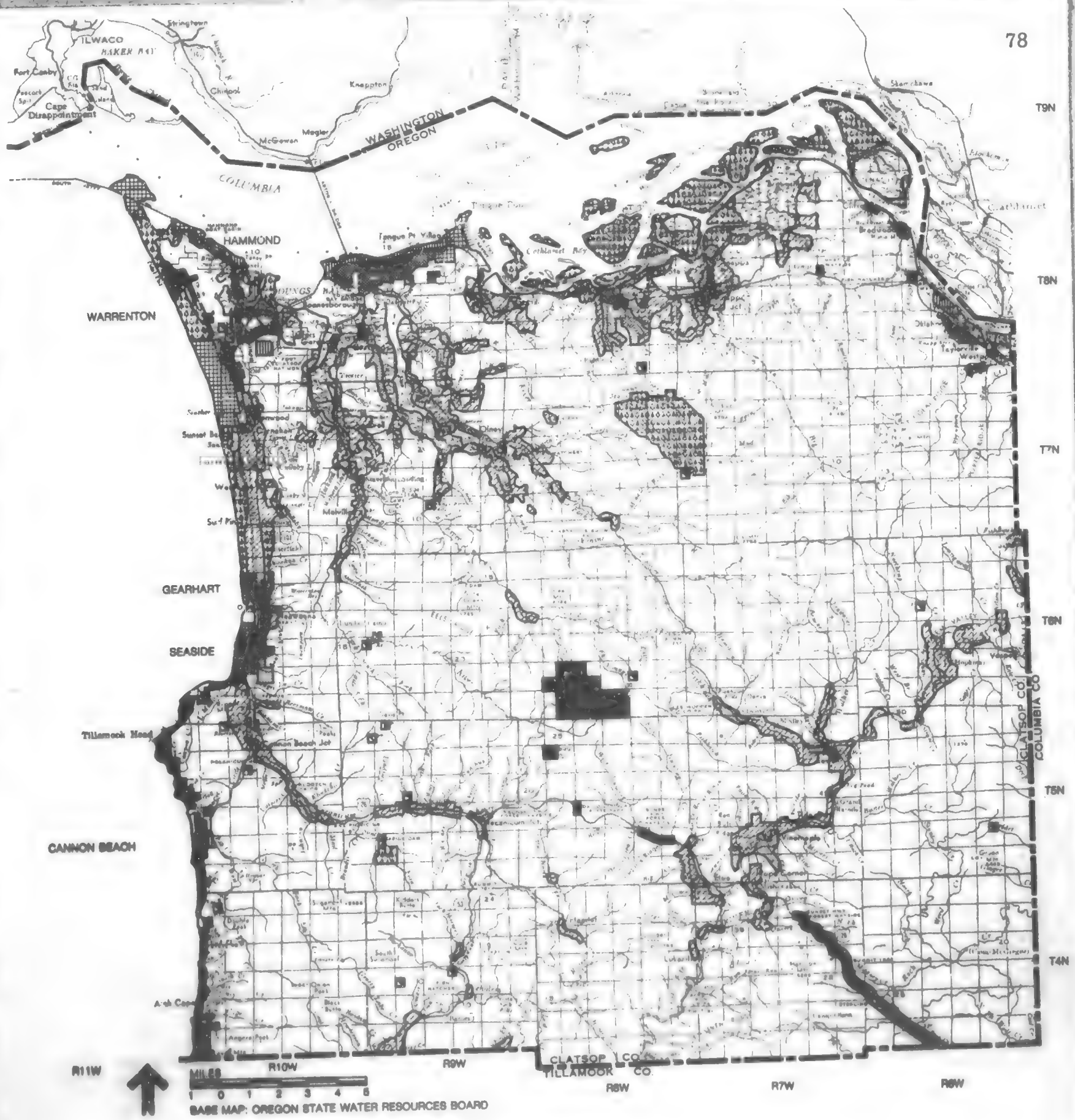
GOVERNMENT LANDS

- FEDERAL
- STATE FORESTRY DEPARTMENT
- OTHER STATE LANDS
- COUNTY AND MUNICIPAL

PRIVATE LANDS

- CROWN ZELLERBACH (Over 5,000 acres)
- BOISE CASCADE (Over 5,000 acres)
- OTHER LARGE HOLDINGS (Over 5,000 acres)
- HOLDINGS UNDER 5,000 ACRES

CLATSOP COUNTY LAND & WATER USE PLAN PHASE STUDY, 1973 SKIDMORE, OWINGS & MERRILL



BASE MAP: OREGON STATE WATER RESOURCES BOARD

CLATSOP COUNTY EXISTING LAND USE, 1970

SOURCE: MICHAEL DONLEY, Ph.D

- RESIDENTIAL (Urban: Ave. density over 0.5 dwelling unit per acre)
- RESIDENTIAL (Rural-Suburban: Ave. density under 0.5 dwelling unit per acre, except for trailer courts where located outside of urban areas)
- COMMERCIAL
- INSTITUTIONAL & MILITARY
- INDUSTRIAL
- EXTRACTIVE INDUSTRY (Active Operation)
- CONSERVATION
- FOREST & WOODLAND
- AGRICULTURE (Diked)
- AGRICULTURE
- RECHEATION (State parks, waysides, golf courses)

CLATSOP COUNTY LAND & WATER USE PLAN

PHASE I STUDY, 1973

SKIDMORE, OWINGS & MERRILL

Residential

Most of the residential development in the regional area of influence occurs within the incorporated cities--Astoria, Warrenton, Hammond, Gearhart and Seaside. An analysis of housing in Clatsop and Tillamook counties was prepared in 1972 by the Clatsop-Tillamook Intergovernmental Council (CTIC). The analysis is based on 1970 U.S. Census information.

The CTIC study indicates that there were about 12,240 housing units, including mobile homes, in Clatsop County in 1970. Of these, about 2,005 units were vacant at the time of the census taking. About 73 percent (1,460±) of the vacant units were devoted to seasonal use. Most of the seasonal units are condominiums, summer homes and weekend cabins, and cannot be considered as available housing. This leaves about 540 dwelling units available in the county for long-term occupancy. The CTIC study found that over one-half of the 540 available units were substandard. The following highlights some pertinent statistics.

1970 Vacant Housing Characteristics in Clatsop County

Available long-term housing	540 units
Available housing for sale	22% (115±)
Median sale price	$15,300
Available housing for rent	78% (420±)
Median rent	$68 per month

Mobile homes accounted for about 4 percent (417±) of the total housing stock in the county in 1970 according to the CTIC study. An inventory of mobile home parks in 1971 by the County Health Department found 803 total mobile spaces. It can be assumed from these figures that there are about 385 available mobile home spaces in the county. However, the survey did not differentiate between improved and unimproved mobile home spaces. The following table illustrates the location of mobile home spaces.

Mobile Home Spaces in Clatsop County

Location	Number of Spaces
Westport area	86
Astoria area	213
Warrenton area	221
Gearhart area	131
Seaside area	88
Cannon Beach area	64
1971 Total Spaces	803
1970 mobile home inventory	417
Assumed Available Spaces	386

An inventory of motels was also conducted by the County Health Department in 1971. The following table indicates the number of rooms available in various locations in the county. Besides providing commercial overnight lodging, motels can also provide temporary housing needs for construction workers and persons seeking permanent housing locations. The survey did not evaluate the quality of the units.

Motel Units in Clatsop County

Location	Number of Units
Westport area	8
Astoria area	489
Warrenton area	51
Gearhart area	227
Seaside area	1,229
Cannon Beach area	441
	2,445

A small amount of new housing has been constructed in the region during the past five years. Most of it has occurred within the incorporated cities. The following table from the CTIC study indicates single-family building permits within the various jurisdictions.

SINGLE-FAMILY DWELLING UNITS
Valuation, Number of Permits and Average Value
1965 - 1971

Location	Valuation	#Permits	Average Value
Clatsop County			
1965	402,100	43	9,300
1966	795,133	53	15,000
1967	1,650,163	95	17,300
1968	1,191,397	73	16,300
1969	1,031,807	56	18,400
1970	1,089,801	64	17,000
1971	1,407,717	86	16,200
Astoria			
1965	147,000	8	18,300
1966	219,000	11	19,900
1967	264,000	11	24,000
1968	370,000	18	25,000
1969	213,450	9	23,700
1970	188,000	7	24,000
1971	233,500	11	21,200
Cannon Beach			
1967	94,180	6	15,700
1968	109,500	7	15,600
1969	193,000	15	12,800
1970	98,002	11	8,900
1971	243,000	17	14,300
Seaside			
1967	183,100	10	18,300
1968	298,826	21	14,200
1969	288,800	15	19,200
1970	165,950	12	13,700
1971	501,330	28	17,900

CTIC Interim Housing Report - 1972

A 16-unit multi-family development has recently been constructed in Warrenton. A 30-unit low income multi-family project is also under construction in the community. The following updated CTIC table shows condominium construction level across the study area.

CONDOMINIUM CONSTRUCTION
Since 1964

Location	Buildings	Units	Valuation
Clatsop County			
1964	1	14	195,000
1965	2	44	800,000
1966	1	27	648,000
Astoria			
To June 1972	1	4	44,000
Cannon Beach			
1971	1	96	1,000,000
Gearhart			
1973	1	96	1,200,000
Seaside			
1973	1	60	1,000,000
Warrenton			
1973	1	30 (Low income apts.)	248,000

The City of Astoria recently approved its first planned unit residential development. Located on the southwest side of the city, it will ultimately contain a combination of 400 single-family and multi-family dwellings.

Several large parcels of land in the Clatsop Plains area are being considered for residential development pending the extension of sewers into the area and development of the AMAX project. A small subdivision of 62 single-family homes has recently been developed near Cullaby Lake. There are a total of 68 platted lots of which three are duplex, one is fourplex and one large lot left for a condominium. According to the owners, Bucher Real Estate Co., they have an additional 100 acres which will be platted for development in 1974.

Commercial Land Use

The largest concentration of commercial uses in the region is the Astoria Central Business District. It contains a wide variety of small retail and commercial service uses. However, there are no major stores in the city or the region. Most major comparison shopping is in Portland, 95 miles away.

Seaside has a somewhat smaller central business district made up of retail and service commercial uses which cater mainly to summer visitors. There are many seasonal resort hotels and motels in the city.

Warrenton has a small town center which contains several convenience retail and commercial service uses. Hammond has about six small commercial establishments, as does Gearhart.

U.S. Highway No. 101, running north-south through the region, is sporadically dotted with highway-oriented commercial services. These include mainly auto service stations and restaurants.

Industrial Land Use

Industrial development in the region is limited to a few large plants and support activities. The larger plants and their locations include:

American Can Company - Astoria

Astoria Marine Construction Company - Astoria

Astoria Plywood Corporation - Astoria

Barbey Packing Corporation - Astoria

Bioproducts, Inc. - Hammond

Bumble Bee Seafood - Astoria

Crown Zellerbach Corporation - Wauna/Westport & Astoria

Warrenton Lumber Co.-Sawmill - Warrenton

Ocean Foods of Astoria, Inc. - Astoria

Point Adams Packing Company - Hammond

Port of Astoria - Astoria

Union Fishermen's Co-Op Packing Co. - Astoria

The Clatsop County Airport lies approximately 1 mile east of the project site. It has two 5000-foot paved runways and night landing facilities. The airport also provides space for the U.S. Coast Guard helicopter station.

Agricultural Land Use

The majority of land in the region is used for forestry. The flat lands along the Lewis and Clark River and Youngs River are used mostly for dairy grazing and some crop production. A small portion of the lowlands just east of U.S. Highway No. 101 are used as commercial cranberry bogs. Most of the forest lands in the region are owned by Crown Zellerbach Corporation and managed for sustained yield forest resource production.

Conservation

Much of the land area west and north of Highway No. 101, known as the Clatsop Plains, is made up of sand dunes, inland lakes, marsh lands, and tidal flats. This area has been the subject of considerable conservation work over the years. Dune stabilization programs conducted by the Soil Conservation Service, including planting of beach grasses, scotch broom and shore pines, and installation of dune fences, have reclaimed considerable beach and dune area from tidal action and wind drifting. Pages V-44 through 46 illustrate pictorially the dune conservation progress of a specific Warrenton area from 1935 to 1960. Page V-47 shows a typical conservation planting of dunes. A large portion of the area acts as the prime groundwater acquifer for the region. Very little development has occurred in the area and large portions are in public ownership and recreational use.

Land Use - Immediate Vicinity

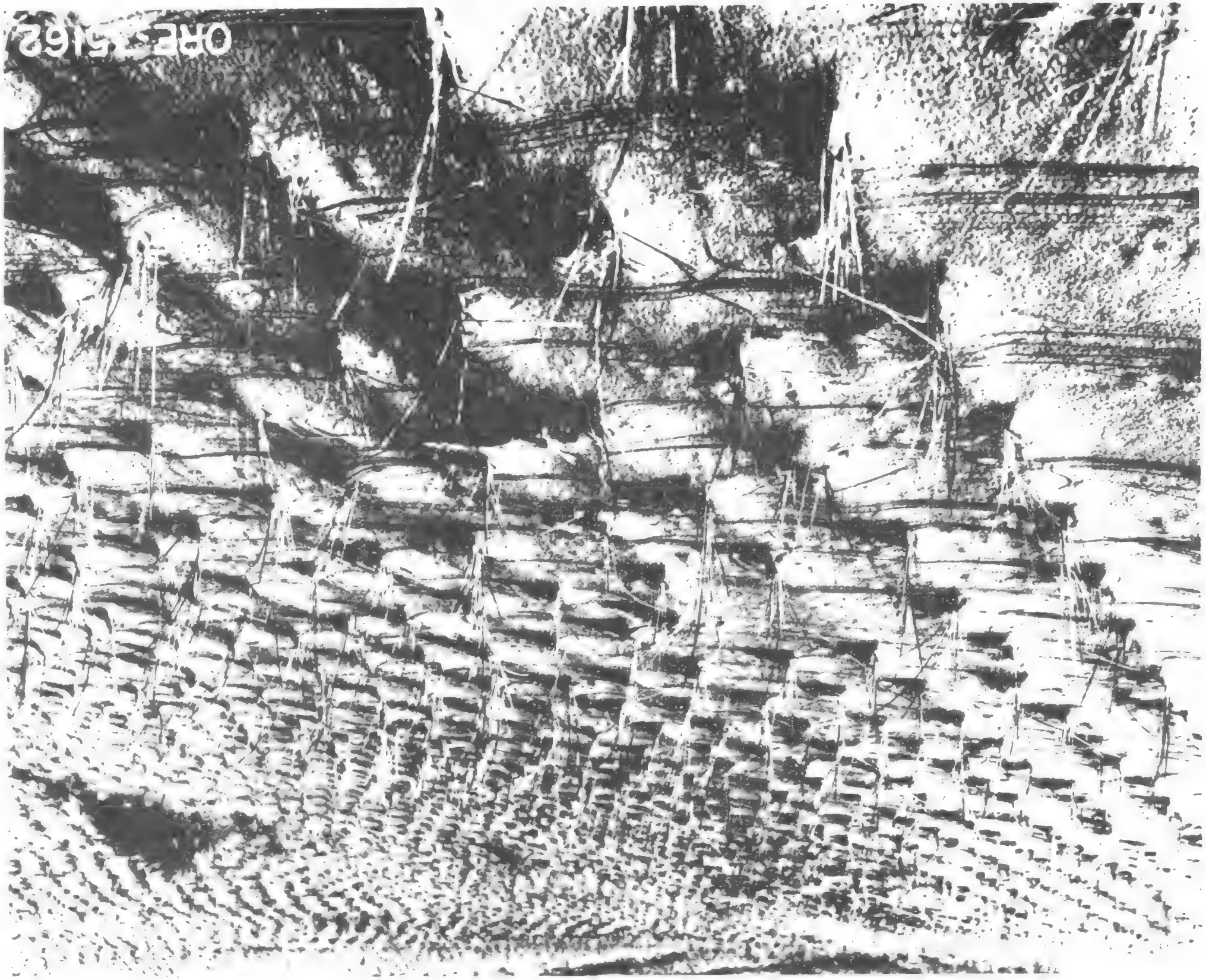
The project site comprises approximately 726 acres south of U.S. Highway No. 101 adjacent to the southeast corner of the City of Warrenton. A portion of the project site lies within the city limits of Warrenton. The central portion of the site (240 acres) has been cleared and rough-graded by previous owners in anticipation of industrial development. The remainder of the site is in its natural state of secondary growth conifers and miscellaneous deciduous trees and brush. Within the north

WARRENTON DUNE AREA - 1935

SAME WARRENTON DUNE AREA - 1960

SAME WARRENTON DUNE AREA - 1942

TYPICAL PLANTING IN DUNE AREA



boundary of the project site, there are 20 single-family homes. Some of these residences have been acquired by the company, others may be acquired and the families relocated before construction begins on the site.

Only the central portion of the site which has been cleared will be developed, leaving the outer portion of the site in its natural state as a visual buffer.

Utility rights-of-way are already largely provided to the project site. The specific rights-of-way:

Sanitary Sewer	-	Hoo 'p provided for at corner of Warrenton Main Street and existing Highway 101. Connection to site involves no disruption and is through undeveloped land.
Water	-	Hookup provided for at corner of Warrenton Main Street and existing Highway 101. Connection to site involves no disruption and is through undeveloped land.
Natural Gas	-	Pipeline and connection already at plant site.
Electricity	-	BPA transmission line right-of-way already purchased, surveyed and ready for construction. Pacific Power & Light line and substation already installed at plant site.
Storm Sewer	-	Access to natural drainage areas already obtained via property purchase or existing easements.
Railroad	-	Spur right-of-way not yet specifically established.

The location of the Burlington Northern spur to the plant site has not yet been decided. Among the alternatives under consideration, the preferred spur would start at a point just west of Youngs Bay trestle and skirt the west boundary of Clatsop County airport entering the plant site via bridge crossing over the old Coast Highway 101 at the northeast corner of the site. The Oregon State Highway Division has previously acquired right-of-way along the west side of the project site to straighten a 3-mile portion of Highway 101. Prior to the completion of the realignment of Highway 101, the main site entrance

will be located along old Highway 101 on the east side of the site. The eventual main entrance will be provided on the west side of the site directly from an interchange with realigned Highway 101. No other right-of-way acquisition or widening for access or services is contemplated which will affect surrounding land uses.

The area surrounding the project site is largely undeveloped. The area north of the project site is fairly level and much of it is adjacent to the Skipanon River. Little development has occurred except for scattered residential and highway-oriented commercial uses along Highway 101.

To the west of the project site is the Skipanon River Valley. This wetland area is subject to periodic flooding and should be preserved in its natural state. This would provide a wide buffer (one-half mile) between the plant site and future development which may occur adjacent to Highway 101.

To the south and east, the topography rises sharply. This area is heavily timbered and will likely continue to be used as a forest products resource area by Crown Zellerbach.

The entire Amax project site is zoned for heavy industrial use. See the Composite Zoning map on page V-51.

Existing county zoning south and east of the project site is limited to agricultural/forestry uses. The remainder of surrounding properties within the county are zoned residential/agricultural, except for a spot commercial zone and a spot industrial zone along Highway 101.

Zoning north of the project site is controlled by the City of Warrenton. Most of this area is zoned residential except for property fronting on Highway 101, which is zoned for commercial use.

The nearest industrial land is the Clatsop County Airport which is zoned for industrial use by the Port of Astoria.

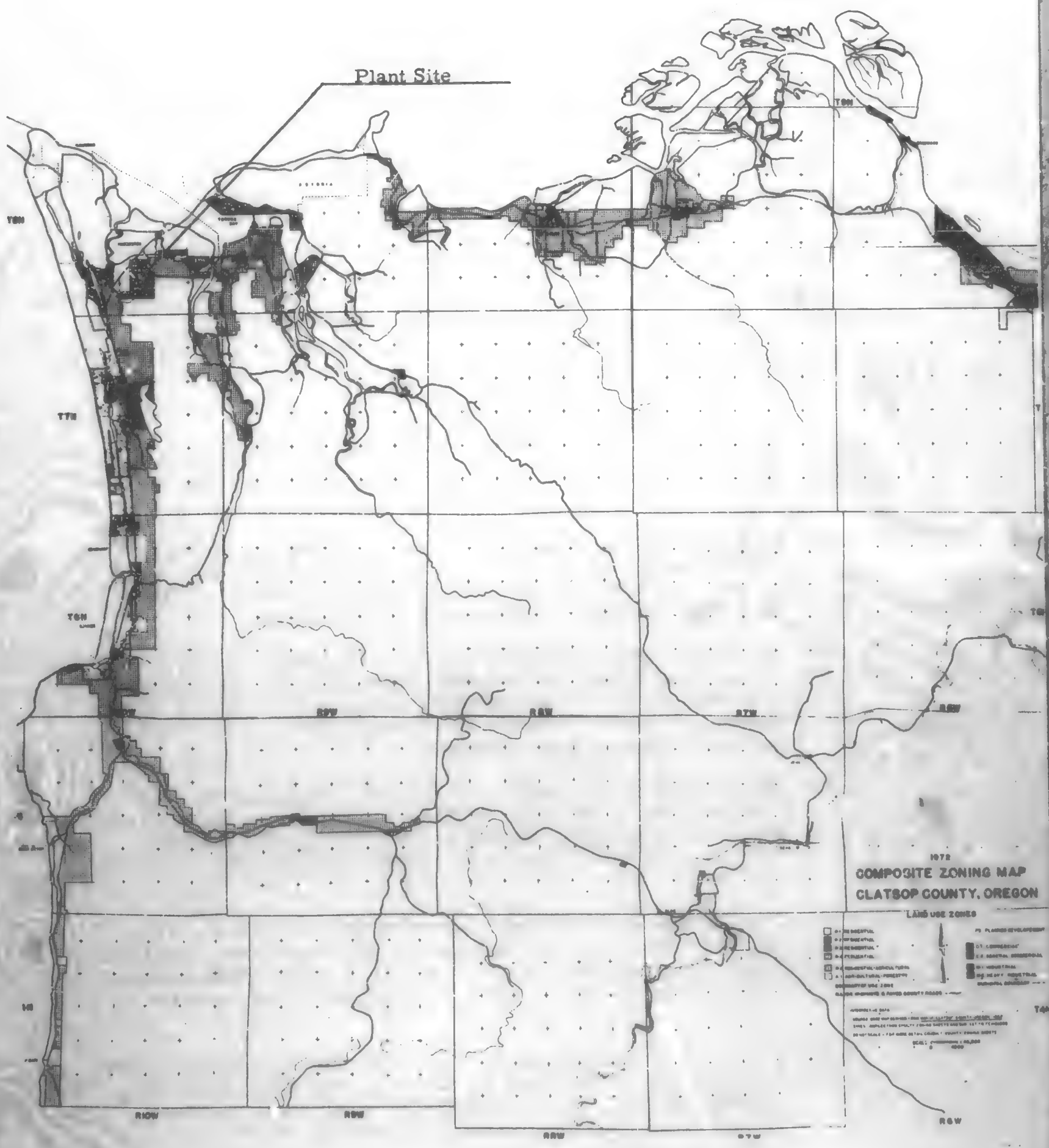
Community Facilities

Education

The Superintendent of the Clatsop County Intermediate Education District, Richard B. Knotts, developed a July 1973 report entitled, "Statistics and Inventory of Clatsop County Schools". This report details in a concise and factual manner the circumstances of the

existing county school system. Mr. Knotts provides the county inventory and recognizes that individual school systems might have alternate methods for solving some of the problems as they now exist. His report is included as Appendix C.

To further document the existing inventory of educational facilities in the area Amax engaged consultant services. This consultant's report is included in an appendice volume entitled, "Community Impact Analysis".


Plant Site
T6N
T7N
T5N
R9W
R8W
R7W
R6W
R10W
T4N
1972
COMPOSITE ZONING MAP
CLATSOP COUNTY, OREGON
LAND USE ZONES

Recreation

Recreation in the region includes deep sea fishing, Columbia River fishing, local stream and lake fishing, clamming, boating, seasonal hunting, camping, hiking, golf and other outdoor pastimes.

In addition to the public open space along the rivers and ocean beaches, there are a number of developed parks and recreational areas. These include:

1) Fort Stevens State Park--located off U.S. Highway No. 101, 10 miles west of Astoria. Has 379 tent camp sites, 224 trailer sites, 225 picnic sites. All are equipped with stoves, either wood or electric, flush toilets, bath houses, boat docks, group camping, play areas, etc.

2) Fort Clatsop National Monument--located off U.S. Highway No. 101, 5 miles southwest of Astoria. Has small picnic area, flush toilets, museum, and nature trails.

3) Cullaby Lake--located on U.S. Highway No. 101, 6 miles north of Seaside. Has 20 picnic sites, wood stoves, flush toilets, boat ramp, nature trails, fishing, swimming and water skiing area.

4) Kloochy Creek--located on U.S. Highway No. 26, 5 miles southeast of Seaside. Designated as a Timber Company park, is on private property. Has 12 tent sites, 18 picnic sites with wood stoves, pit toilet, nature trails, and fishing.

5) Ecola State Park--located on U.S. Highway No. 101, 2 miles north of Cannon Beach. Has 68 picnic sites, wood and electric stoves, flush toilets, nature trails, fishing, geology, ocean beach, scenic views and swimming.

6) Saddle Mountain State Park--located off U.S. Highway No. 26, 8 miles northeast of Necanicum Junction. Has 6 tent sites, 38 picnic sites with wood stoves, pit toilets, nature trails, geology, and scenic view.

7) Spruce Run County Park--located off U.S. Highway No. 26, 6 miles southeast of Elsie. Has two tent or trailer sites, 25 picnic sites with wood stoves, pit toilets, nature trails, fishing, swimming (Nehalem River).

8) Hug Point State Recreation Area--located on U.S. Highway No. 101, 1 mile south of Cannon Beach. Has flush toilets, fishing, ocean beach, swimming, 21 picnic sites.

9) Tolovana Beach State Recreational Area--located on U.S. Highway No. 101, 1 mile south of Cannon Beach. Has flush toilets, fishing, ocean beach, and swimming.

10) Bradley State Park--located on U.S. Highway No. 30, 22 miles east of Astoria. Has 16 picnic sites, wood stoves, flush toilets, and view.

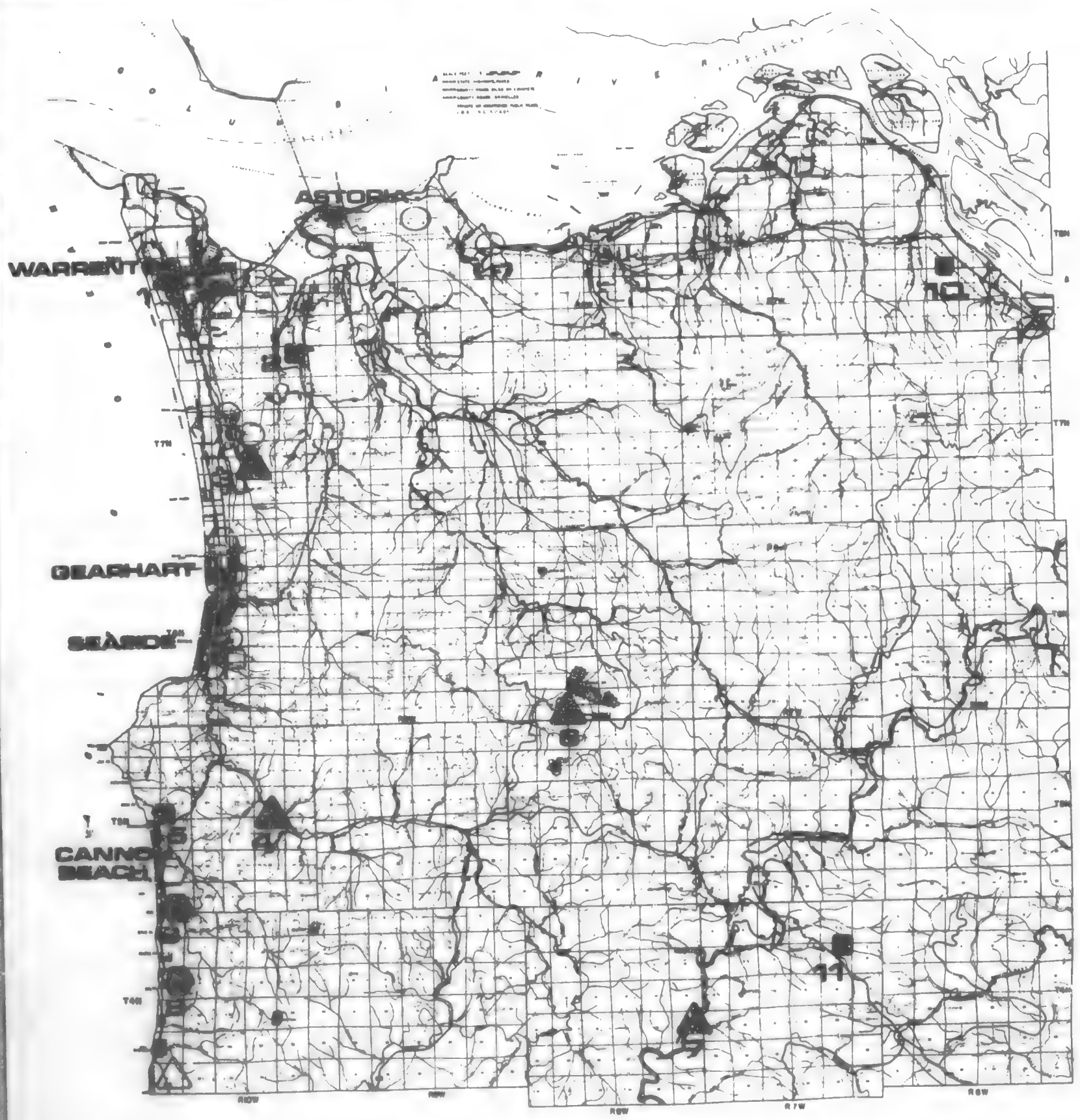
11) Sunset Springs State Rest Area--located on U.S. Highway No. 26, 26 miles east of Necanicum Junction. Has 5 picnic sites, pit toilets, spring and stream.

The Parks and Recreation Division of the Oregon State Highway Department is carrying on a continual facility expansion program at Fort Stevens State Park. This area is one of the most popular and heavily visited on the coast. Other expansion plans within the county include improvement of facilities at Fish Hawk Falls Park and Cullaby Lake and a new boat ramp at Knappa.

For the golfer there are three courses--one private 18-hole course, and two public courses, one 9 and the other 18 holes. Boat marinas exist at Warrenton, Hammond and Astoria. Surfing is enjoyed by some in spite of the ocean temperature of 53 degrees.

A map on page V-54 illustrates Clatsop County Recreation Areas.

Visitor statistics for Fort Clatsop, Fort Stevens, and the Maritime Museum follow:



CLATSOP COUNTY RECREATION AREAS

- BOATING
- PICNICKING
- MULTIPURPOSE
- BEACH ACCESS
- GOLF

AMAX PACIFIC ALUMINUM CORP
WARRENTON OREGON

VISITOR STATISTICS

Year	Fort Clatsop	Fort Stevens	Columbia Maritime Museum
1960	30,000(est.)		
1961	69,038		
1962	70,464		
1963	71,707	502,725	
1964	71,922	592,564	
1965	69,992	725,128	
1966	87,244	814,391	
1967	82,600	956,216	
1968	89,868	1,047,2 3	
1969	106,236	1,808,296	55,000
1970	115,586	1,126,267	64,000
1971	122,958	1,220,877	69,000
1972	109,876	1,528,135	35,000
1973	95,149	1,470,469	

Libraries

The county is served by two public libraries. One is located in Astoria, the other in Seaside. Citizens residing outside the limits of these cities pay a check-out fee of $5.00 per year to cover facility use. At one time Astoria did provide Bookmobile service to the rest of the county. This service was discontinued in 1969. Accordubg to the Librarian's Annual Report, library use was down during 1973. Adult fiction circulation totaled 27,195; juvenile fiction totaled 14,880; Adult non-fiction circulation totaled 33,031; and juvenile non-fiction totaled 2307.

Hospitals

Clatsop County has three general hospitals; two in Astoria which have recently been combined, and one in Seaside. Total capacity is 138 beds. Because Columbia and Memorial hospitals in Astoria do not conform to federal standards, and modernization has been determined economically infeasible, it has been proposed that a new hospital be built on a new site to replace them. The proposed hospital will contain 81 acute care beds and 40 long-term care beds. In September 1970, a new hospital opened in Seaside which meets federal requirements.

Long-term care in the county is provided by the nospitals and three licensed nursing homes: two in Seaside and one in Astoria. Existing facilities are having financial

problems due to low utilization percentages. Astoria hospitals have a 64 percent utilization; Seaside's have a 70 percent utilization. Nursing homes, however, are 100 percent utilized and have waiting lists.

Twenty-four medical doctors practice in the county--nineteen in Astoria and five in Seaside. Eighteen dentists practice--eleven in Astoria and seven in Seaside.

County Health Services available through the Public Health Clinic, include:

1) Immunization
2) Family planning
3) Home health care (visiting nurses)
4) Bloodmobile
5) School health programs
6) X-rays
7) Mental health

Venereal disease and alcoholism are significant health problems in the county. Also prevalent is an unusually high incidence of suicides. The following tables and calculations, gathered from the annual reports of federal and state health agencies, give the dimensions of these problems:

V.D. Rate Comparison - County, State and National

Year	County Cases	Rate/ 100,000	State Cases	Rate/ 100,000	National Cases	Rate/ 100,000
1961	11	40.2	1,785	98.3	392,085	219.1
1972	412	1,402.8	9,161	427.5	720,979	355.1

Alcohol consumption statistics are not comparable between county, state and the nation. However, one indicator of county consumption would be the fact that $2,264,821 was spent for liquor in 1972 in Clatsop County per the Oregon State Liquor Board. Recognizing that this includes summer tourists, the average per capita expenditure was $80 for each of the 28,473 residents (1970 census). The County Health Department believes that Clatsop County alcoholic consumption is amongst the highest in the state.

Suicide Incidence Comparison - County, State and National

Year	County Cases	Rate/ 100,000	State Cases	Rate/ 100,000	National Cases	Rate/ 100,000
1962	7	29.7	237	13.0	20,207	10.9
1972	7	24.3	301	13.8	22,980	11.1

County civic, administrative and institutional facilities include the following:

Each of the six incorporated towns in Clatsop County has a City Hall.

The Job Corps Center at Tongue Point enrolls women who have not completed their high school education or are unemployable because of lack of training. Students receive training in vocational skills and instruction in general studies. The University of Oregon operates the center. Approximately 60 percent of the girls enrolled complete the course, and of those completing, 80 percent are gainfully employed. Though the school has gained national recognition, recent funding cutbacks have reduced enrollment and staff by approximately one-half.

The County Court House provides office space for assessors, circuit court, county engineers, planning commission, district attorney, district court, humane officer and dog control, juvenile department, county sheriff, county jail, surveyor, treasurer, county clear, and county commissioners.

The federal building houses the extension service of Oregon State University, the Agriculture Stabilization and Conservation Service, Selective Service Board No. 1, Social Security Administration, vessel documentation, Customs office, and U.S. Postal Service.

Oregon State University College of Agriculture operates the seafood laboratory in Astoria.

The National Marine Fisheries Research office in Hammond studies marine life in the Columbia Estuary. Among current projects are studies on plankton, salmon migration, and crabs.

Camp Rilea is a Federal Reserve National Guard Camp, and is used for summer training of Guardsmen of the 49th Engineer Battalion.

There are U.S. Post Offices in Astoria, Cannon Beach, Seaside, Warrenton, Hammond, Tolovana Park and Arch Cape.

Cultural and historic facilities include:

Fort Stevens, built during the 1860's to guard the entrance to the Columbia River, abandoned after the Civil War, reactivated during the Spanish-American War, enlarged during World War I, and deactivated after World War II, is now a large park with roads, trails, and campgrounds. This park is so popular that advance reservations must be made for overnight camping.

First Presbyterian Church on Pacific Coast. Clatsop Plains Memorial Chapel is located 10 miles south of Astoria on Highway No. 101. Built in 1846.

First U.S. Post Office west of the Rocky Mountains--built in 1847. Memorial is erected in center of Astoria.

Fort Clatsop on the shores of the Lewis & Clark River was the first American settlement established by the Lewis & Clark expedition members when they built the fort in the winter of 1805. The fort has been recreated by the U.S. Park Service and incorporates a museum of artifacts from the expedition. The park was opened to visitors July 1960 and had 30,000 visitors by the end of the year. During 1973 there were 95,149 visitors.

Maritime Museum, which is located in the old Astoria City Hall, and on the south bank of the Columbia River, is famous for its most complete coverage of ships and maritime artifacts. Records this past year (1973) reflect 35,000 visitors from all parts of the U.S. and Canada.

The Astoria Historical Museum, housed in the Flavel House, built in 1883, contains artifacts that date back to the early days of the Clatsop Indians.

The Astoria Column, towering above the city on a promontory that commands a panoramic vista of ocean, river and mountain, commemorates the westward sweep of discovery and migration which brought settlement and civilization to the Sunset Empire. This 125-foot tall tower was built in 1926. For the ambitious visitor, there are 166 steps in a circular staircase leading to an observation platform at the top. Accurate records of visitors to the tower and park are incomplete; however, it is a very popular spot, both day and night.

Fort Astoria, originally established in 1811 by a member of John Jacob Astor's Pacific Fur Company, was the first permanent American outpost west of the Mississippi. A partial reproduction on the original site is located in the center of Astoria.

Wreck of the "Peter Iredale"--a British bark of 2,075 tons which was blown on to the beach October 25, 1906. Part of the keel and bow still rests on the beach and is one of the most photographed objects along the entire Oregon Coast.

Other cultural and historic places to visit in the county include the Lewis and Clark Monument, Salt Cairn and Seaside Convention Center in Seaside; the Art Center in Cannon Beach; the Convention Center in Gearhart; and the Lewis and Clark Little Theater in Astoria.

Public safety of residents of Clatsop County is guarded by state, county and city police, by city and rural fire department, and the United States Coast Guard. With 74 officers and 28,340 inhabitants, the county exceeds quoted FBI standards of 1.7 policemen per 1000 population. The police manpower distribution of the county follows:

Police Manpower Distribution

Location	Strength	Equipment	Area of Responsibility
Astoria	19	6 cars 1 cycle	6-1/2 sq. miles
Warrenton	3	2 cars	City limits
Gearhart	2	1 car	City limits
Hammond	1	1 car	City limits
Seaside	10	6 cars	City limits 4-1/2 sq. miles
Sheriff	8	6 cars 3 trucks	Rescue - county 873 sq. miles
State Police	31	31 cars	County 873 sq. miles
	74	53 + 4	

The U.S. Coast Guard, stationed at Astoria Airport and equipped with three H-3 helicopters, provides emergency marine rescue service for yachtsmen and fishermen, stranded hikers and accident victims. In addition to airborne activity, the Coast Guard also maintains a life-boat station at Ilwaco, Washington, across the Columbia, and guards against boating accidents on the river or offshore.

Fire protection in the county is both paid and volunteer. Of a total of 248 trained firemen in the county, 31 are full-time, the rest volunteers. There are 12 fire stations; and pooled equipment totals 37 pumpers and 2 tankers. All units are linked under the Oregon State Fire Service Plan. The Astoria Fire Chief is the District Fire Marshal. Clatsop, Tillamook and half of Columbia County are included in his District. In addition, the State Forestry Department and Crown Zellerbach support forest fire suppression when called.

County Welfare programs include the Public Welfare Division, Children's Service Division, Employment Division, Surplus Foods outlet and the Public Health Department. All these services are provided from offices in Astoria. Case load of figures indicate an above-average number of individuals and families receiving support from these agencies.

Welfare Caseload

(Calendar year averages per month)

	1962	1964	1966
Clatsop County	484	409	357
Oregon	32,682	30,235	30,374
United States	4,054,333	4,128,868	4,119,134

	1968	1970	1972
Clatsop County	296	418	473
Oregon	27,616	41,393	42,587
United States	4,567,433	5,700,442	6,725,317

(Source: Dept. of Welfare, Oregon State Dept. of Human Resources)

County Welfare expenditures in 1972 totaled $664,317, or $1,425 per case.

Children's Services Caseload

	1964	1966	1968	1970	1972
Foster Homes					
Oregon	3,020	3,699	4,022	4,546	4,963
Clatsop County	64	84	79	86	82
Children Receiving Payment for Care					
Oregon	2,540	3,323	3,430	3,953	4,815
Clatsop County	60	77	76	67	80

(Source: Div. of Children's Services Oregon State Dept. of Human Resources)

Utility Systems

Water Systems

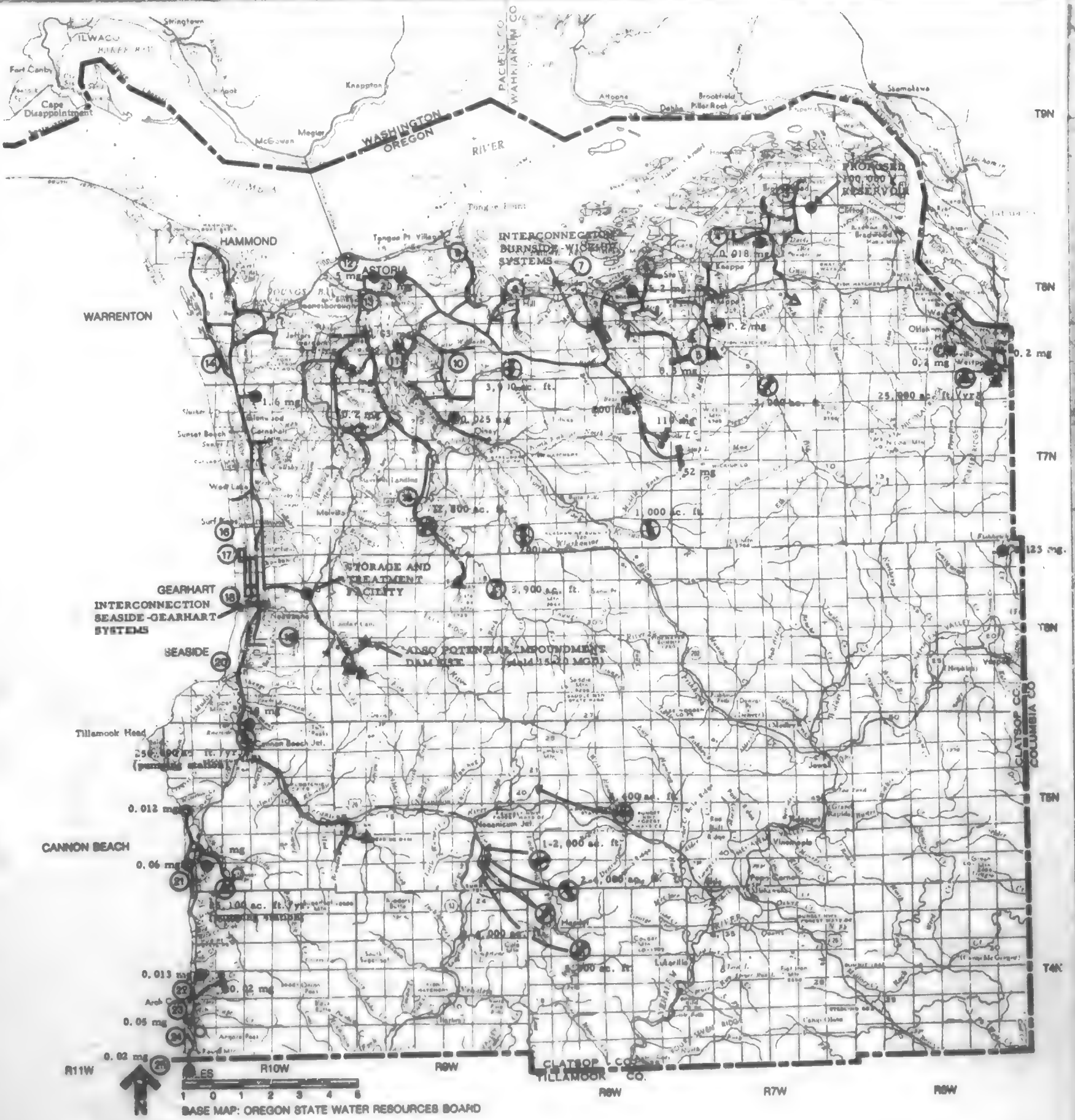
There are presently some twenty-eight different water systems in Clatsop County, serving approximately 25,000 people. Approximately 3,000 people are on their own private wells, and of this 3,000, some 600 people live in the Nehalem River drainage area, an area too large and too sparsely populated to support any major public systems. Water for these systems is taken from creeks, streams, rivers, lakes, springs and groundwater. According to engineering studies commissioned by the County Commissioners in 1968, most of the small water systems in the county are inadequate in supply, storage and distribution system capacities. The supply is adequate today, but can become short in dry years, particularly in the smaller systems. There has been no successful effort to consolidate the various water districts in Clatsop County, although it has been discussed.

The existing Warrenton water system has water rights on the Lewis & Clark River and three of its tributaries. Four diversion-type dams on this watershed provide water to the system. Total water storage is approximately 5 million gallons from the four dams and an additional 1.6 million gallons of reservoir storage capacity. Pipeline capacity of the system is 6.0 MGD and stream flow on the Lewis & Clark River is 5.2 MGD at normal low water. Flow figures for the tributaries of the Lewis & Clark River are not available.

In addition to Warrenton, the city water system serves Gearhart, Hammond, Clatsop Plains, Camp Rilea, Fort Stevens State Park and the Fort Stevens area.

The map on page V-63-64 details the existing water facilities of the county.

Present consumption in the system averages 2.0 MGD with peak consumption as high as 3.5 MGD. Under normal low water conditions, water demand is low enough to leave sufficient water available for a significant increase in domestic demand on the system. Under extreme drought conditions, the flow in the Lewis & Clark River drops to 1.8 MGD; under such drought conditions flow in the tributaries has been estimated at 1.0 MGD. This situation, while unusual, would occur during August or during the normal dry period.



CLATSOP COUNTY WATER SYSTEMS

SOURCE: ENGINEERING REPORT BY CARL E. GREEN AND ASSOCIATES

- EXISTING PIPELINE
- EXISTING RESERVOIR
- EXISTING SYSTEM
- EXISTING DIVERSION DAM
- EXISTING IMPOUNDMENT DAM
- POTENTIAL DIVERSION DAM
- POTENTIAL IMPOUNDMENT DAM

(See text for explanation of numbered items)

CLATSOP COUNTY LAND & WATER USE PLAN — PHASE I STUDY, 1973 — SKIDMORE, OWINGS & MERRILL

CLATSOP COUNTY WATER SYSTEMS

1. Westport Water Association
2. Wauna Water District
3. Brownsmead Water District
4. Knappa Coop Water Company
5. Carmen Creek Water Association
6. Wiciup Water District
7. Burnside Water Association
8. Fern Hill Community Water System
9. John Day Water District
10. Olney - Wailuski Water Association
11. Willowdale Water District
12. Astoria Water System
13. Youngs Bay Water Company
14. Warrenton Water System
15. Youngs River - Lewis & Clark Water District
16. Surf Pines
17. Palisades Pipeline Company
18. Gearhardt - Seaside Interconnection
19. Stanley Acres Water Association
20. Seaside
21. Cannon Beach Water Company
22. Western Shoreways Inc.
23. Kent - Price Water System
24. Arch Cape Water Company
25. Falcon Cove Beach, Domestic Water System

Under extreme drought conditions, the water available to the system can fall short of present demands. Increased water storage of about 25 million gallons could be developed in the Warrenton water system to maintain a supply in drought periods.

Sewage Disposal

The widely varying natural conditions and population densities present problems for sewage disposal. At present, there is not a coordinated sewer system plan for Clatsop County. The population centers of the county are individually served by a variety of treatment plants and subservice disposal systems. According to a current study of land and water use in Clatsop County, many of these installations are faulty and inadequate and require considerable updating to meet existing Department of Health and Department of Environmental Quality demands and standards as well as those projected for the future. Planned expansion of sewer systems in the county will be predicated on current studies to develop comprehensive sewage plans. (Current studies include a DEQ study on water quality and waste treatment in the area of the North Coast and Lower Columbia Basin, a CH2M study on sewage plans for Clatsop Plains, and a Harlan, Gessford & Ehrichson study on comprehensive water and sewer plans in Clatsop and Tillamook counties.)

The Warrenton sewage treatment facility is located at the north end of the city, west of the Skipanon River. It is the only installed facility in the county. The facility consists of two treatment lagoons and a chlorinator at the outfall overflow. Each treatment lagoon is 13 acres in size, surrounded by a dike. One lagoon is primary treatment; the other is secondary treatment. Overflow from the secondary lagoon goes to the outfall. At the outfall, discharge is chlorinated in a multi-chambered unit, and after chlorination, the treated discharge flows into the Columbia River. Normal water evaporation plays an important part in this treatment facility. Only during periods of heavy rainfall is there any flow through the chlorinator and into the outfall. Bacterial action in the lagoon eliminates all of the solids. No residue remains in either of the lagoons. There are no odors at the treatment plant.

Solid Waste Disposal

Currently there are 13 identified solid waste disposal sites in Clatsop. Six of these sites have been issued

temporary permits by DEQ. The remaining seven have not been issued permits, and of the six authorized sites, four are classified as sanitary landfills. Two are merely dumps. A sanitary landfill is distinguished from a dump in that the sanitary landfill process compacts and confines the refuse to the smallest possible area and then covers the refuse with a layer of earth at frequent intervals.

Electric Power

Electric power in Clatsop County is supplied by the Bonneville Power Administration (BPA) and is distributed, mainly through Pacific Power and Light Company (PP&L). Small amounts of electricity are sold and distributed in the county by the Western Oregon Co-Op (WOEC) and the Tillamook Public Utility District (PUD), members of the Rural Electrification Administration (REA), and the Clatskanie PUD.

The Crown Zellerbach mill at Wauna buys directly from BPA. The primary PP&L transmission lines serving the county are 115 kv. from the Longview, Washington, substation. These lines provide service to the area along the Columbia, Astoria and surrounding areas, Warrenton and Hammond and along the Coast. WOEC has a 34.5 kv. transmission line which serves Jewell, Elsie and the Nehalem Drainage area from the Timber Substation in Washington County.

The low voltage lines of the Tillamook PUD and Clatskanie PUD serve small areas along the southern border and eastern border respectively. The major electrical substations are located at Wauna, Clatsop and Driscoll, and smaller substations serve the Knappa-Svenson area, Warrenton, Seaside, and Cannon Beach. There is no power generated within the county and at this time there is no hydro-electric capability within the county. The existing electrical distributing system meets the needs of the county. There are no immediate plans for expansion.

Natural Gas

Natural gas is supplied within Clatsop County by Northwest Natural Gas Company. The product is purchased from El Paso Natural Gas Company who pipe it from Canadian gas fields to their Deer Island Station. A 400 psi high-pressure feeder main system supplies gas to Clatsop County in pipes ranging in size from 16-inch, leaving

the station, to 6 inches along the coast. This pipeline occupies both shared and exclusive right-of-way, traversing the northern edge of the county. From a regulator, just south of Astoria, service is provided to a junction on Clatsop Plains where pipeline extends north to Hammond and south to Seaside. There is no gas service at the Cannon Beach-Arch Cape area, nor to the interior areas of the county. There are no natural gas storage facilities in the area. All industries connected to natural gas in the county have interruptible contracts. During periods of curtailment. industry relies on local suppliers of oil and propane.

Communications

Pacific Northwest Bell provides telephone service in Clatsop County. Present services include some 9,000 private and 1,500 commercial accounts. Expansion capacity is not limited and additional service is available as demand is created. Three radio stations serve the county; KAST and KVAS located in Astoria and KWSB in Seaside. Cox Cablevision provides service in the Astoria-Warrenton area. Seven channels are available.

There are six newspapers serving the area. The Oregonian and Journal are dailies out of Portland. The Daily Astorian published in Astoria covers from the North Shore of the Columbia to the northern part of Tillamook County. The Seaside Signal published in Seaside, the Columbia Press published in Astoria, and the Times Eagle published in Wheeler are all weeklies.

Transportation Systems

Clatsop County is served by a full range of transportation systems, highways, rail, water and air. All of these systems have been heavily influenced by the natural features of the land and water; the single most important factor being the Columbia River. The railroad follows along the south bank of the river. The busiest highway on a year-around basis is U.S. 30, which also follows the river. Ocean shipping and inland barge traffic follows the river and finally the major airport is located on the estuarine flats on the south shore of Youngs Bay.

Streets, Arterials and Highways

Three major roads form the basic framework of the highways in the county. Of the total vehicular miles traveled each year, 80 to 90 percent is along Highway 30, which more or less parallels the Columbia River. This route is the major east-west connection between Astoria and the manufacturing towns of the lower Columbia industrial areas and Portland.

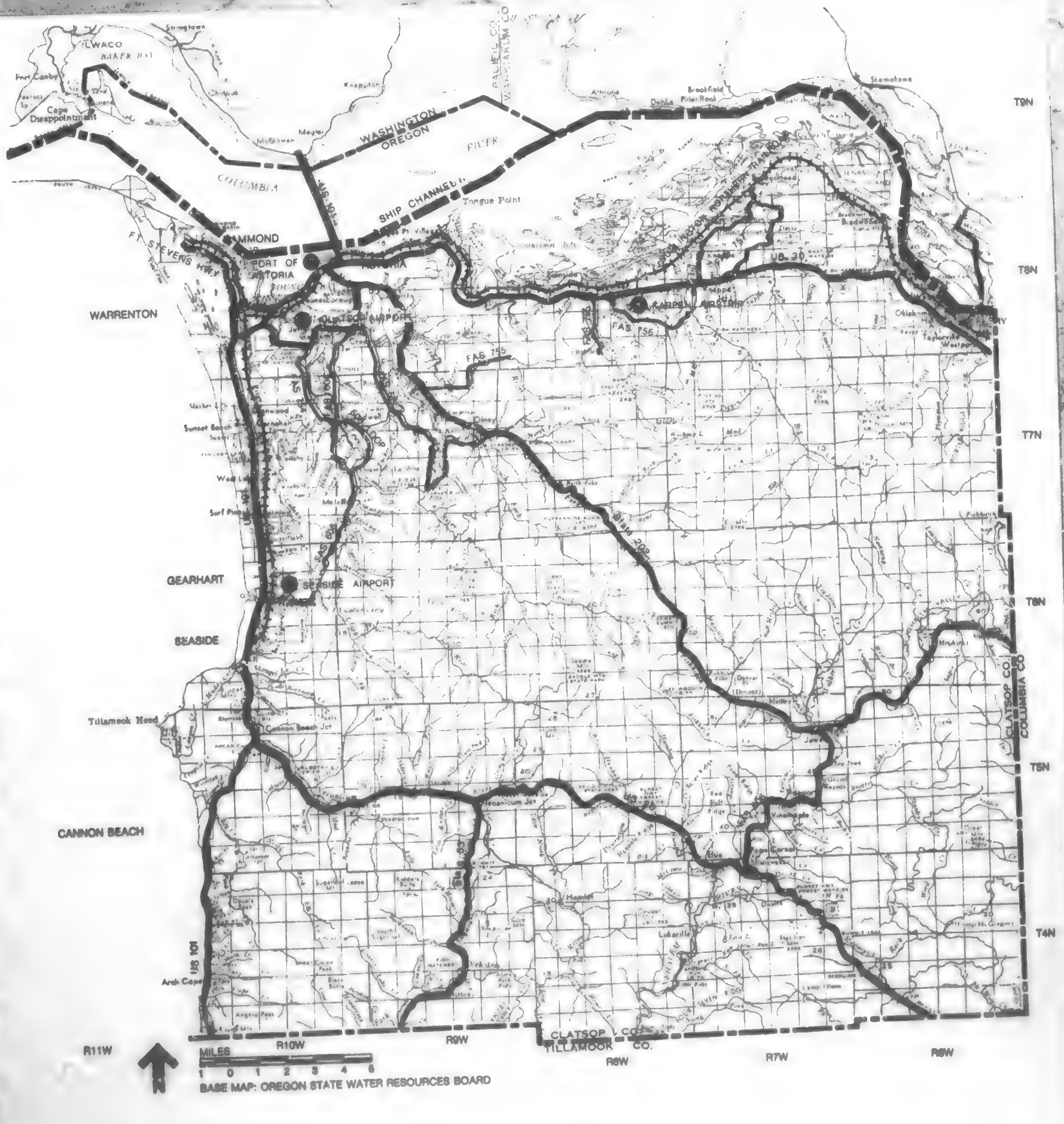
Highway No. 101 runs north and south along the Pacific Ocean from the $24 million Columbia River Bridge, in Astoria, to the Tillamook County line, and provides access to all the coastal beaches and recreational areas. It also connects with Highway 26.

Highway 26 is the third major artery, and runs east and west from Seaside to Portland. This route provides rapid access to the Clatsop Beaches and recreational areas for the tourists from Portland and the interior.

There are 400 miles of county roads, state park roads, city streets, and other public roads. The Federal Aid Highway System consists of 242.75 miles of roads. Clatsop County maintains 195.0 miles of paved roads and 50 miles of unpaved. Their annual budget for road maintenance is $350,000.

A map of the county, state and federal arterial highways is on page V-69.

Utilization of roads in Clatsop County, as shown on Traffic Volume Table 1971, published by Oregon State Highway Division, shows a marked increase of travel on U.S. 30



CLATSOP COUNTY TRANSPORTATION

SOURCE: OREGON STATE HIGHWAY DEPARTMENT

over the past ten years. This, in part, is due to the completion of the Columbia River Bridge in Astoria, improvements of the highway and less accumulation of snow and ice in the winter due to lower elevation.

Highway 101 from Cannon Beach Junction to Astoria is also overburdened, largely because it is narrow, crooked, and contains many residential accesses.

Public Transit

Bus passenger service is presently provided by Greyhound. Service is provided as follows: On U.S. 30 (Columbia River) between Portland and Astoria, once a day westbound, and twice a day eastbound; on U.S. 26 (Sunset) and 101 (Coast) between Portland and Astoria, twice a day eastbound and twice a day westbound; on the coast Highway No. 101 and Wilson River highway (in Tillamook County) between Seaside and Portland via Tillamook, once a day eastbound and once a day westbound.

Private intra-city bus system operates in urban Astoria. Parcel service is provided by three companies. United Parcel, with offices in Portland and Seaside, services all the county on a demand basis. Greyhound has services along their regular route and Railway Express, with a terminal in Astoria, provides service along the coast once a week.

Truck freight service is provided by Nehalem Valley Motor Freight, and to a limited extent, ONC Freight Systems. ONC services Astoria, only, from points in Washington State. Nehalem Valley serves all parts of the county on a regular schedule. Shipments to Astoria include general cargo with some containerized loads. Shipments in 1971 and 1972 were:

1971 -	from Portland	14,415 tons	
	to Portland	4,045 tons	- total 18,460 tons
1972 -	from Portland	17,000 tons	
	to Portland	4,570 tons	- total 21,650 tons

Nehalem Valley is presently increasing their dock and storage area and have resources to accommodate any increase in tonnage.

Railroads

Rail transport is furnished by Burlington Northern Railroad. There is a total of 50 miles of single track located along the Columbia River from Westport to Astoria, with branches going to Hammond, Warrenton, and Seaside. Yard facilities are located in Astoria. No passenger service is provided.

Freight activity is detailed as follows:

Rail Shipments in 1972

Location	Carloads Received	Principal Commodities	Carloads Forwarded	Principal Commodities
Astoria	3,288	Grain	1,497	Canned Goods (fish)
Seaside			15	Lumber
Hammond	4	General	31	Canned Goods (fish)
Warrenton	60		328	Lumber, Fish Meal
Wauna	1,066	Chemicals	431	Paper
Other	350		100	
	5,164		2,402	

Source: Burlington Northern Railroad

Further expansion of rail service to Clatsop County will depend on local demand. Existing tracks could carry quantities of additional freight.

Airports

There are three airports in Clatsop County: Clatsop Airport on Youngs Bay, Seaside Airport at Seaside, and Karpan Airstrip near Svenson. Clatsop Airport provides the only scheduled commercial passenger and air freight service in the county. Harbor Airlines provides service from Astoria to Portland and Seattle; with four round-trips daily to Portland and two serving Seattle. Seaside Airport is for light aircraft and is mostly used by private aircraft. The runway is limited to aircraft of less than 5,000 pounds. The Karpan Airstrip is a grass runway, and is used by light private aircraft only.

Marine

Water transportation activities are dominated by the Columbia River which forms the northern border of the County Federal Waterway. Projects include the Columbia River entrance with a channel depth of 48 feet, and a width of 2 miles for a distance of 3 miles at the mouth of the river; the Columbia River ship channel is 40 feet deep and 600 feet wide; and Youngs Bay/Youngs River 30 feet deep, and 150 feet wide, extending from the Columbia River at Astoria, 6-1/2 miles up river to Haven Island.

The Columbia River ship channel handles all classes of water-borne commerce, including dry cargo ships and tankers up to 50,000 tons, barges, log rafts, commercial fishing vessels and pleasure craft. Youngs River is used extensively for log rafts. In addition, many of the sloughs and channels of the Columbia River are used for log raft transportation and storage.

The Port District of the Port of Astoria has jurisdiction over the whole of Clatsop County. Port facilities are located in Astoria on the Columbia River adjacent to the ship channel 10 miles upstream from the mouth. The terminal has three piers containing nine berths, with an authorized depth of 35 feet. Facilities include equipment for bulk grain handling, 415,000 square feet of open storage, a fuel dock and full ship services.

Summary tabulation of port tonnage follows on page V-73. A datailed breakdown of tonnage experience is contained on page V-74 together with a port general arrangement drawing on page V-75.

Summary of Tonnage for the Port (in Thousands of Tons)

	1969	1970	1971	1972
Outbound				
Logs	847	959	896	1,166
Grain	44	324	241	315
Other	141	141	137	146
	1,032	1,424	1,274	1,627
Inbound	77	46	32	43
	1,109	1,470	1,306	1,670

PORT OF ASTORIA TERMINALS
FOUR YEAR TONNAGE SUMMARY COMPARISON

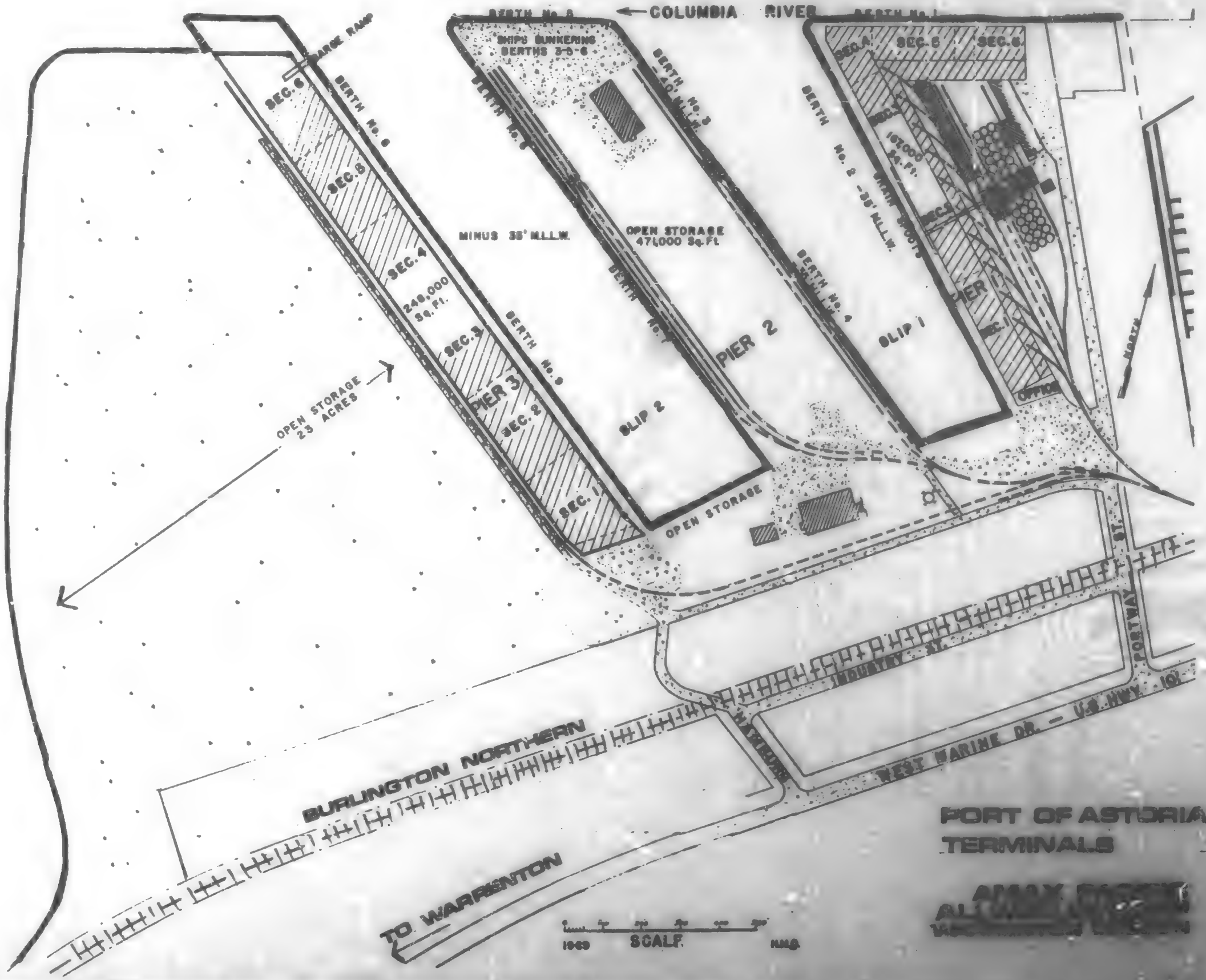
	1972	1971	1970	1969
No. of Vessels	227	222	220	190
Tons Outbound	1,626,868 Tons	1,246,629 Tons	1,423,935 Tons	1,031,973 Tons
Tons Inbound	42,789 Tons	32,065 Tons	46,375 Tons	77,373 Tons
Total Tonnage	1,669,657 Tons	1,278,694 Tons	1,470,310 Tons	1,109,346 Tons

OUTBOUND OCEAN TONNAGE

COMMODITY				
LOG FBM	438,185,121 FBM	326,731,787 FBM	360,536,042 FBM	318,478,250 FBM
Lumber FBM	59,948,860 FBM	47,529,209 FBM	46,199,930 FBM	58,268,246 FBM
Logs	1,165,572 Tons	869,106 Tons	959,026 Tons	847,152 Tons
Lumber	99,517 Tons	78,898 Tons	76,692 Tons	96,726 Tons
Plywood	550 Tons	51 Tons	3,839 Tons	5,421 Tons
Flour & Rolled Oats	25,468 Tons	21,659 Tons	6,516 Tons	13,816 Tons
Grain Products	314,687 Tons	240,838 Tons	323,544 Tons	44,326 Tons
Bulk Peas	12,203 Tons	10,953 Tons	2,670 Tons	1,923 Tons
Feed Pellets	6,417 Tons	9,180 Tons	17,502 Tons	928 Tons
Wood Pulp	---	3,339 Tons	6,802 Tons	1,468 Tons
Paper Products	2,454 Tons	12,522 Tons	5,697 Tons	2,964 Tons
General Cargo	---	83 Tons	3,955 Tons	7,441 Tons
Canned Salmon	---	---	---	11 Tons
Urea	---	---	17,692 Tons	9,797 Tons
Total Outbound	1,626,868 Tons	1,246,629 Tons	1,423,935 Tons	1,031,973 Tons

INBOUND OCEAN TONNAGE

COMMODITY				
Petroleum	12,884 Tons	11,534 Tons	18,960 Tons	13,186 Tons
Frozen Fish	5,387 Tons	3,768 Tons	3,320 Tons	5,536 Tons
Wood Pulp	24,518 Tons	13,741 Tons	11,560 Tons	49,855 Tons
Plywood	---	---	---	994 Tons
General Cargo	---	430 Tons	1,492 Tons	139 Tons
Canned Fish	---	---	5,818 Tons	3,271 Tons
Newsprint	---	2,592 Tons	5,225 Tons	4,392 Tons
Total Inbound	42,789 Tons	32,065 Tons	46,375 Tons	77,373 Tons



PORT OF ASTORIA
TERMINALS

Economy

Employment

Clatsop County's economy is heavily dependent on three major activities other than government employment: Fish processing, lumbering and wood products, and tourism. Each of these is improtant enough to exert a strong influence on the overall economy. Each is fairly sensitive to changes in market conditions and subject to unpredictable natural events such as unusually large or small runs of fish for fish processing, periods of drought, storm, or fire for forestry, extremely cold and wet summers for tourism. Consequently, overall employment fluctuates considerably from year to year. A more diversified economic base, including more stable employment sources, would tend to reduce the yearly fluctuations.

The following tables illustrate the distribution of employment levels by occupation.

Employment Distribution
Clatsop County - 1971

All Employment	100%
Agricultural	4.8%
Self-employed and domestic	12.7%
Food products and manufacturing (fishing industry, canneries)	11.8%
Lumber and wood products manufacturing	8.8%
Other manufacturing	7.4%
Construction	2.8%
Transportation, communications & utilities	4.0%
Trade	16.0%
Finance, insurance and real estate	2.1%
Service and miscellaneous	12.2%
Government	17.4%

Source: State of Oregon Employment Division - Department of Human Resources

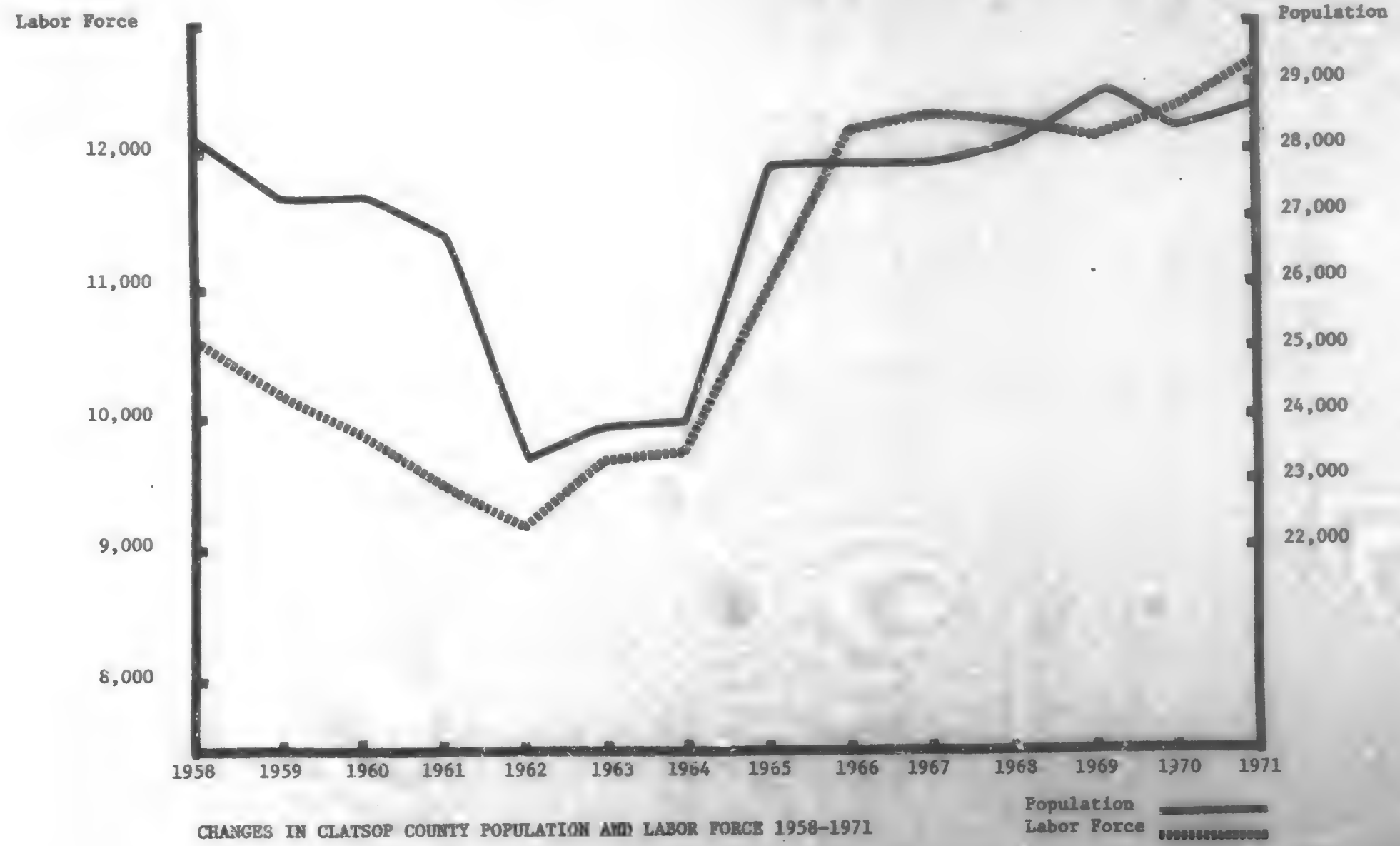
Employment Levels by Occupation

(Annual Average)

	1970	1971	1972	1973
Civilian Labor Force	12,350	12,670	12,650	13,010
Workers in Labor/ Mgt. Disputes	10	40	10	60
Unemployment	700	990	780	810
Percent of Labor Force	6.2	7.8	6.2	6.2
Employment	11,570	11,640	11,860	12,140
Agricultural	550	560	560	560
Non-agricultural	11,020	11,080	11,300	11,580
Self-employed Unpaid Family and Domestics	1,480	1,480	1,450	1,390
Wage and Salary Workers	9,540	9,600	9,850	10,190
Manufacturing	3,200	3,250	3,330	3,160

Source: Oregon Department of Human Resources

Another important aspect of the economic situation is the seasonal fluctuation in employment levels. The table on page V-78 illustrates the variations in county employment from month to month for the four major activities and for the overall economy. Low employment levels occur during the winter months with peak employment in late summer. Most of the seasonal fluctuation is inherent in the nature of the activities. Employment in food processing tends to follow the fish harvest. Employment in service business, which represents much of the tourist industry is also highly seasonal because of the weather patterns and the American custom of taking vacations in the summer. Lumber and wood products employment does fluctuate seasonally but is more stable on a year-around basis than other basic industries.



CHANGES IN CLATSOP COUNTY POPULATION AND LABOR FORCE 1958-1971

Source: Center for Population Research and Census, Portland State University, State of Oregon Employment Division, Department of Human Resources

Interpretation of the comments relating to component labor categories contained on page V-80 follows:

Agricultural employment presently represents less than 5 percent of the total labor force. In 1958 agriculture accounted for slightly more than 10 percent.

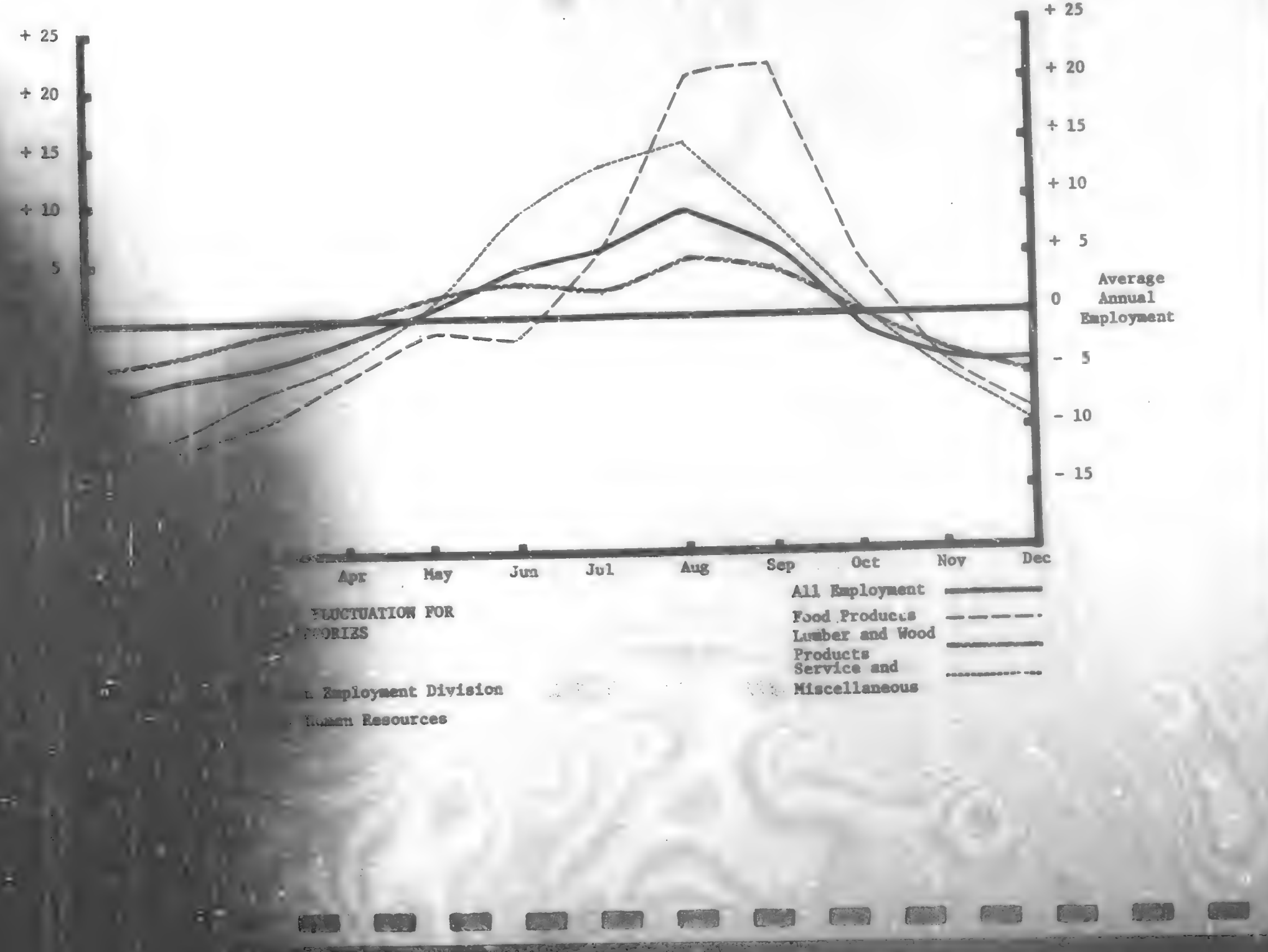
The fish processing industry continues to be a major area employer. Employment levels have been holding even, with some increase noted in the last few years. Provided there is no decline in seafood harvest and consumption, fish processing employment levels should remain high.

Lumber and wood products also figure prominently in the county's employment picture. There has been a slight decline in recent years, partly as a result of increased mechanization and partly because of shifts in processing activities. With the closing of several sawmills, some log production and employment has shifted to the relatively new pulp mill at Wauna. Some log production has also shifted to export, primarily to Japan, of whole logs. Increases in lumber and wood products employment will probably occur in the processing area.

Construction employment has experienced wide fluctuations in recent years. Levels from 1958-1962 were very low due to population emigration. The building of the Columbia River Bridge and the paper mill at Wauna in the mid-60's boosted construction employment to over 12 percent of the total employment. Since 1968 construction employment has slowed to 2.8 percent. It should hold or show a slight increase with ongoing construction of condominiums and new sewage projects within the county.

Employment in transportation, communications, and utilities continues to be low. These activities have generally increased to total volumes, but mechanization and automation has also increased substantially, thus cutting the potential for increased employment. Future employment levels will probably not change very much unless the Port of Astoria experiences major growth.

Wholesale and retail trade employment is gradually increasing. Since the early 1960's growth patterns in county trade have been fairly steady, and job numbers have climbed. Much of the employment in the trade category is related to tourism and recreation, which is expanding. Increase in the buying power of the population has also helped stimulate trade employment.


+ 25
+ 20
+ 15
+ 10
5
+ 25
+ 20
+ 15
+ 10
+ 5
0
- 5
- 10
- 15
Average Annual Employment
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
All Employment
Food Products
Lumber and Wood Products
Service and Miscellaneous
FLUCTUATION FOR
TORIES
Employment Division
Human Resources

Total available new jobs in finance, insurance and real estate is small, though business activity in these areas is on the increase. Continued growth can be expected to meet needs of an expanding retirement and resort population.

Service related employment in the county is up sharply. In 1958 this category represented 8 percent of the total employment. The 1973 figure stands at 12 percent largely due to developing tourism and recreational activity.

Government payroll in the area, while remaining at a significant level, is currently undergoing reductions from levels noted early in 1973. The Tongue Point Job Corps Center, activated in 1968 and a source of considerable local employment, has experienced funding changes for fiscal year 1974. Government employment in the area is in the process of dropping.

Income Levels - Ranges of income averages for Astoria and Clatsop County are shown on the following charts. Median income ranges from approximately $9,400 to $9,900, but over 8 percent of county families have an income less than poverty level; and 25 percent of the retired, over-65 population have incomes at less than poverty level.

The following tabulations detailing these statistics are taken from the 1970 Census.

Clatsop County Family Income Ranges

Income	Astoria	County
$4,999 or less	510	1,555
$5,000 to $8,999	648	1,970
$9,000 to 24,999	1,422	3,762
$25,000 and over	94	238
Median Income	9,984	9,430

Income Less Than Poverty Level

Income	Astoria	County
Families	179	646
Percent of all Families	6.7	8.6
Percent 65 yrs. & over	36.4	25.6

Value of Economy - The estimated overall dollar level of the Clatsop County economy for 1972 was approximately $330 million. This is based on an update of 1968 input-output analysis of the county economy prepared by Dr. Theodore G. Collin et al in association with Oregon State University. The table on page V-83 shows the value of each economic classification in terms of estimated dollar value and percentage as identified in the input-output study. The dollar values as estimated for 1968 are greater in 1972, but division of percentage values have probably not changed substantially. The complete Collin study is contained in Appendix E. The study covers the effect of a new aluminum plant on the economy of Clatsop County.

At the present time the economy of Clatsop County is based very heavily upon the local natural resources. Forestry and forest products, commercial fishing and fish processing, and tourism make up nearly half of the dollar value of the local economy. These three basic industries account directly for about 35 percent of employment. The U.S. Chamber of Commerce estimates that on the average, one job in basic industry will generate 0.65 additional jobs in local, non-basic activities, such as consumer sales, construction and local government. Available employment data indicates that the non-basic employment ratio approximates the employment distribution which exists in Clatsop County.

Property Values - Total assessed valuation in Clatsop County in 1965-1966 was $124,072,020 and was $292,036,895 in 1969-1970. The breakdown of property values for 1972-1973 follows and indicates another sizable increase.

CLATSOP COUNTY: ESTIMATED VALUE OF ECONOMY BY INDUSTRY FOR 1968

	Dollars	Percent of Total Economy	Percent of Private Sector
Private Sector:			
Lumber	60,564,452	22.9	23.8
Commercial Fishing	3,566,305	1.3	1.4
Fish Processing	39,786,531	15.0	15.6
Agriculture and Fur	3,799,475	1.4	1.5
Manufacturing	7,124,345	2.7	2.8
Lodging	7,597,314	2.9	3.0
Cafes and taverns	6,395,356	2.4	2.5
Service Stations	6,594,843	2.5	2.6
Auto sales and service	9,580,321	3.6	3.8
Communications & transportation	13,722,312	5.2	5.4
Professional services	7,452,140	2.8	2.9
Financial	7,876,573	3.0	3.1
Construction	18,669,454	7.1	7.3
Products	45,394,380	17.1	17.8
Services	16,235,945	6.1	6.4
Total Private Sector	254,360,046	96.1	100.0
			Percent of Public Sector
Public Sector:			
Education	5,012,717	1.89	49.1
County Roads	442,645	0.17	4.3
Law Enforcement	229,842	0.09	2.3
Health Department	86,297	0.03	0.8
Welfare	765,777	0.29	7.5
Port Authority	1,056,011	0.40	10.3
General Fund (County)	534,166	0.20	5.2
Astoria	1,321,309	0.50	12.9
Warrenton	162,965	0.06	1.6
Hammond	26,777	0.01	0.3
Gearhart	83,224	0.03	0.8
Seaside	390,796	0.15	3.8
Cannon Beach	105,938	0.04	1.0
Total Public Sector	10,218,464	3.9	100.0
TOTAL	264,578,509		

Source: Theodore G. Collin, Russell Youmans, & Herbert Stroevener, Impact of a Major Change on a Coastal Rural Economy; A Large Aluminum Plant in Clatsop County, Oregon. (Corvallis: O.S.U., 1970).

1972-1973 Summary of Property Values
Clatsop County

Type	1972-1973 Dollar Value	Percentage
Residential	$129,368,520	37.13
Commercial	38,123,260	10.94
Industrial	122,596,775	35.18
Farm	23,585,820	6.17
Forest land	25,789,890	7.40
Other	107,503,200	8.14
Total	$348,429,565	100.00%

Source: Clatsop County Assessor

For taxation purposes and by law, property in Clatsop County is assessed at 100 percent of fair market value under conditions of highest and best use. A breakdown of tax rates for county residents is shown on the following table.

Major City Comparison
Tax Rates per $1,000 - Valuation 1972-73

	Astoria	Warrenton	Seaside	County
County	$ 1.48	$ 1.48	$ 1.48	$ 1.48
City	8.91	2.59	5.25	
Intermediate Ed.	7.81	7.81	7.81	7.81
School district	11.38	13.72	8.56	9.59
Port of Astoria	.62	.62	.62	.62
Clatsop College	1.69	1.69	1.69	1.69
Roads	.53	.64	1.43	.76
Fire district				.83
Union Hospital			1.24*	
CEP & RD			.70**	
Consolidated Rate	$32.42	$28.55	$28.78	$22.78

*Union Hospital is a special tax for people in Seaside, Gearhart, and Cannon Beach.

**Sunset Empire Park and Recreation District is a special tax for people in Seaside, Gearhart and Cannon Beach.

Source: Detail of Code Area Consolidated Tax Rates

Local Government

Clatsop County

The Board of County Commissioners is the governing body of Clatsop County. The three commissioners are elected at large by majority vote of the people for four-year, staggered terms. The commissioners decide among themselves which will serve as chairman each year. The Board of County Commissioners has no administrative authority over other elected county officials, but does have regulatory control over departments through its control of the budget. The Board determines how much money each department shall have for salaries and operating expenses, and must approve all proposed expenditures during the year. It determines the amount of revenue needed and levies property taxes sufficient to meet requirements.

Clatsop County is within the First United States Congressional District, 14th State Senatorial District and First State Representative District. Registered voters in 1972 totaled 16,776.

Port of Astoria

The Port of Astoria operates as a special district, independent of the county. It provides maritime shipping facilities on the lower Columbia River and operates the west and east end mooring basins for small boats. Port District boundaries are the boundaries of Clatsop County. The district is administered by five port commissioners elected on a non-partisan ballot for four-year, staggered terms. The Port Manager is hired by the Commission to conduct business of the Port. The district has the authority to levy taxes and issue bonds. Additional revenue is obtained for the Port through the leasing of property to businesses. The Port is operated on a sustaining basis on revenues received from shipping. Tax moneys are used primarily for capital improvements.

City of Astoria

The City of Astoria operates under the Council-Mayor plan of city government. The Mayor and four councilmen are elected by the citizenry on a partisan basis to give the guidance necessary for the city operation and growth. In turn, they appoint a City Manager to administer the affairs of the city under policies determined by themselves as elected representatives of the public.

City of Warrenton

The City of Warrenton operates under the Council-Manager plan of city government. A board of five commissioners, elected from the city at large for staggered, four-year terms, elect a mayor from its membership. The mayor's term is for one year. The Board of Commissioners choose a city manager who, in turn, administers the affairs of the city.

Financial statistics of the government entities are outlined in the following table.

Budget and Financial Condition--Fiscal Year 1973-74

	County	Astoria	Warrenton
Total Budget Req.	3,946,427	10,722,608	1,296,544
Less Budget Resources	3,363,746	9,989,958	1,232,603
Taxes Need to Balance	582,681	732,650	63,941
Taxes estimated not to be received	100,000	116,220	6,394
Taxes to be levied	682,681	848,870	70,335
Bond indebtedness	None	3,691,101	1,307,777

Participation within the local government organizations reflects a blend of elected official/citizen responsibility. The pattern is illustrated in the following tabulation.

Citizen Participation and Organizations

Clatsop County

Budget Committee	3 Commissioners +	3 citizens
Board of Equalization Comm.		2 citizens
Fair Board		5 citizens
Industrial Advisory Board		8 citizens
Water Resources Board	3 Commissioners +	3 citizens
Pioneer Cemetery Board		1 citizen
Parks and Recreation Board	3 Commissioners +	6 citizens
Planning Commission		7 citizens

Astoria

Planning Commission		7 citizens
Budget Committee		5 citizens
Library Board		5 citizens
Parks and Recreation Board	1 Commissioner +	4 citizens
Traffic Safety Committee		7 citizens
Boxing Commission		5 citizens
Appeal Board		5 citizens
Civil Service Commission		5 citizens

Warrenton

Budget Committee	5 Councilmen +	5 citizens
Planning Commission		7 citizens

Governmental impetus has been instrumental in the development of diverse planning studies for Clatsop County. The following list on pages V-89 to 92 details the important work completed and under way. The list was completed by Skidmore, Ownings & Merrill. Clearly, Clatsop County is being given significant attention:

Recent capital improvements also indicate local governmental activity:

Clatsop County	1973	Blind Slough Bridge, road improvements
	1972	Spruce Run Park, facility expansion and updating
	1971	Rodeo ground constructed
	1970	Fish Hawk Falls Park, facility expansion
	1970	Transmitter tower for police and fire department use

	1970	Brownsmead Road improvement
	1968	Elsie dump, facility expansion and updating
	1967	Cullaby Lake park development
Astoria	1973	Construction of a new biopond sewage lagocn and a general sewage interceptor network is now under way
	1973	Tapiola Park - facility improvement
	1973	Traffic signal system - improvement
	1973	Construction of off-street parking lot
	1970	Purchase of D-6 caterpillar
	1967	Construction of Astor Library

Consultants

Subsequent to the compilation of the data in this chapter, AMAX engaged consultants to supplement this work and to report on their assessment of impacts resulting from the Warrenton plant. This consultants' report is included as the appendice volume entitled, "Community Impact Analysis".

CURRENT STUDIES BY PUBLIC AGENCIES IN CLATSOP COUNTY, OREGON -- 1973

FEDERAL STUDIES

AGENCY	AREA	SCOPE	PURPOSE	FUNDING	COMPLETION DATE
Pacific Northwest River Basins Commission	Clatsop and Tillamook Coast	Flood control on North Coast Study Area Streams	Identify: Major problems and find solutions	Federal government & State Government	1976
U. S. Army Corps of Engineers	1) Lower Columbia River 2) Columbia River 3) Lewis & Clark 4) Clatsop Spit	1) Flood control study 2) Hammond small boat basin; Astoria turning basin 3) 4 mile long, 10-ft. deep improvement 4) Surveillance study	Investigate: 1) Need for dikes 2) Feasibility study 3) Develop a navigable channel 4) Data on erosion	U. S.	1) Ongoing 2) 1973 or 1974 3) 1974 4) Ongoing
U. S. Department of Agriculture, Soil Conservation Service	Necanicum River	Flood planning study-Field studies Water surface profiles	Develop floodplain maps for planning and zoning use	Soil Conservation Service	
	Oregon Coast	Sand dune study for OCC&DC - mapping and land use guidelines	To form a policy statement for best use of sand dunes-wet areas, etc.	U.S.D.A.	1973
	Entire county	Soil studies for general land use	Planning for recreation, septic tanks, etc.	U.S.D.A.	Ongoing (completed General Soils Map - 1972)
	North Coast Resource Area (Clatsop and Tillamook Counties)	Soil Studies: 1) Clatsop Plains 2) Klatskanie River Big Creek	1) Land use planning 2) Encourage development and resources fish, wildlife, lumber (hatcheries, dams, ladders)	U.S.D.A.	Proposals only - Hope to begin in 1973 if funded
U. S. Department of Commerce - National Marine Fisheries	Columbia River Estuary	Primary and secondary production of estuary of larval fish forms	Develop a means of classifying various areas of the estuary based on productivity-to aid planners, etc.	National Marine Fisheries	Ongoing - will take about 10 years (1983) due to lack of adequate funding.

CURRENT STUDIES BY PUBLIC AGENCIES IN CLATSOP COUNTY, OREGON - 1973...cont'd.

FEDERAL STUDIES...continued

AGENCY	AREA	SCOPE	PURPOSE	FUNDING	COMPLETION DATE
U. S. Department of Interior - Bureau of Sport Fisheries and Wildlife	Lower Columbia	Inventory: Fish and wildlife resources-literature survey	Location of dredge spoil disposal sites	U. S.	1973 - 1974
STATE STUDIES					
OCC & DC	Coastal Zone	1) Wetlands in Coastal zone 2) Historical and Archeological sites 3) Study policies for 18 resource agencies 4) Estuarine planning guidelines	Resource Management Workbook on policy writing	OCC & DC	1) Started in 1973 2) Draft completed 3) Started in 1973 4) Completed
Department of Environmental Quality	North Coast and Lower Columbia Basin of Oregon	1) Water quality management plan. 2) Determine waste treatment procedures and locate sites	1) Attain and maintain full compliance with water quality standards. Restore depleted stream flows. 2) Plan and implement waste treatment facilities (looking for sites).	D. E. Q.	March 1973 (draft)
Department of Geology & Mineral Industries	Clatsop and Tillamook	1) Environmental geology of both counties 2) Inventory of natural resources (gravel, jetty stone, etc.)	Observe and define: Geologic hazards to minimize future development errors in geologic hazard areas.	U. S. Government Counties, G.M.I.	May 1973
Oregon State Engineer	North Coast - groundwater	Evaluation of available groundwater resources	Determine: Quality Quantity Location	Title III U. S. Government	Spring 1973

CURRENT STUDIES BY PUBLIC AGENCIES IN CLATSOP COUNTY, OREGON - 1973...cont'd.

STATE STUDIES...continued

AGENCY	AREA	SCOPE	PURPOSE	FUNDING	COMPLETION DATE
Oregon State Engineer & USGS	North Coast	Study lakes in Clatsop County: 1) Bathometry 2) Temps/relative 3) Water quality 4) Inflow-Outflow	Develop recreational sites.	State Engineers	Summer 1973
Oregon State Highway Department	1) U.S. 30 Tongue Point to Fern Hill 2) U.S. 30 Astoria 3) 101 Seaside and Cannon Beach 4) 101 Warrenton to Camp Riles 5) Skipanon River	1) Engineering and geologic study 2) Study U.S. 30 near Astoria 3) 101 Seaside and Cannon Beach 4) 2.2 miles on 101 5) Skipanon River Bridge	1) Alleviate slide problems 2) Bypass Astoria? 3) Possible bypass Seaside & Cannon Beach 4) 4-lane limited access for 101 1/4 mile east of present 101 5) Relocate? Replace?	1-4) State of Oregon Highway Division 5) Federal Highway Administration	1) 1978 2) 1975 - 1976 3) Tabled presently 4) Hearings 1969, need money to proceed 5) Ongoing
State Board of Aeronautics	Astoria Airport	To develop a master plan for Astoria Airport	To update and expand existing facility	FAA - 75% City of Astoria-25%	Summer - Fall 1973
	Seaside Airport	1) Lease agreement with suitable manager 2) Overcome sewer/water problems 3) Extension of runways	Upgrading facility	State Board of Aeronautics	1976
State Department of Transportation	State-wide	State highways and airports and other public transportation facilities	Determine priorities for master plans in specific transportation areas	State Department of Transportation	October 1973
Ports Division	Lower Columbia (Portland to the mouth)	1) Physical data (geological aspects) 2) Cultural data, zoning, sewer, water 3) Natural resources data; fish and wildlife habitats	Determine best areas for marine related industrial developments	State Department of Transportation	1973

CURRENT STUDIES BY PUBLIC AGENCIES IN CLATSOP COUNTY, OREGON - 1973...cont'd.

STATE STUDIES...continued

AGENCY	AREA	SCOPE	PURPOSE	FUNDING	COMPLETION DATE
State Fish Commission	Lower Columbia River 1) Pollution Abatement Study 2) Big Creek and Clatskanie	Study Water Quality standards	What is required: 1) By E.P.A. 2) By D.E.Q.	State Fish Commission U.S. Government BMFS	1978 or 1979
State Highway Division Parks & Recreation	Stevens State Park	Master Plan	Analysis of park: 1) Resource inventory 2) Direction of future development.	State Highway Dept.	June 1973
State Soil and Water Conservation Commission	Oregon streams	Oregon - stream bank erosion study	Find known erosion in each Oregon Stream	State Soil and Water	January 1973
State Water Resources	North Coast	1) Expansion of minimum stream flows 2) 66 minimum flow points	Updating North Coast Basin	State Water Resources Board	March 1973

LOCAL STUDIES

Clatsop-Tillamook	Clatsop and Tillamook Counties	1) Flcodplain mapping Lewis & Clark River Necanicum River 2) Open space plan-land use, sewer, water, transportation	1) Qualify area for flood insurance 2) Aid in future planning	HUD 701 Funds	1973
CH_2M	Clatsop Plains	Sewer Study	Develop plan for a sewerage system in Clatsop Plains	U. S. and State of Oregon	1973 - 1974
Harlan, Gessford & Erichsen-Engineers	Clatsop and Tillamook Counties	All existing water and sewer systems	Comprehensive water and sewer plan to coordinate water and sewer with planning and zoning-consider immediate and long-range needs of area population.	C.T.I.C.	1974 - 1975

VI

VI. IMPACT ANALYSIS PROCEDURE

A. Introduction VI-1

B. Assessment Approach VI-1

C. The Method of Impact Analysis VI-2

D. Subjectivity of Impact Analysis VI-3

E. Components of the Warrenton Impact Analysis VI-3

VI. IMPACT ANALYSIS PROCEDURE

A. INTRODUCTION

Impact analysis is a key element of modern environmental assessment efforts of the type evidenced by this environmental assessment. The National Environmental Policy Act impact statement requirements have been a strong impetus for formalization of impact analysis procedures within federal agencies. Industrial environmental analysts are adapting the procedures being developed under NEPA for use even in cases where no impact statement is required by law.

The impact analysis procedures employed by Amax in connection with the proposed Warrenton plant are described in the following pages. These procedures were adapted for this project by Dr. Fred Glover and they have drawn heavily upon the methods developed by Dr. Howard Alden of Colorado State University, and which have been applied by impact analysis teams working under the direction of the Thorne Ecological Institute and the Rocky Mountain Center on Environment. As noted in the Introduction to this report, the true test of the effectiveness of environmental assessment practices is not merely whether a report or statement is prepared or even whether the report is a model of environmental analysis. Rather, it is whether the findings are reflected in decisions by the proponent of a particular action.

B. ASSESSMENT APPROACH

Background information on quality of life factors such as environment (air, water, noise, solid waste, recreation, land use, natural resources, housing, transportation, utilities); socio-cultural (population, education, community, health, social relationships); and economic (assets, income, market, growth, security, stability, tax structure) were obtained from field investigation, interviews with government officials, citizens, and from available literature and reports. The ultimate objective of this effort was to provide baseline, state-of-knowledge information which could be used to assess the potential impacts and influences the

development of an aluminum reduction plant at Warrenton might have.

C. THE METHOD OF IMPACT ANALYSIS

After detailing the background to building the Warrenton plant, the physical project itself, and the existing environmental setting, the procedure for the analysis of the impacts follows.

The elements of the natural and manmade systems in the area were categorized. Those studied included:

Natural Systems	Manmade Systems
Geology and Soils	Community Value Systems
Topography	Population Patterns
Climate & Air Quality	Land Use
Water Regimen	Community Facilities
Biotic Community	Utilities
	Transportation
	Economic
	Local Government

The natural system impacts cover the potential effects on land, air, and water as well as flora and fauna. The impacts on the manmade systems covers a spectrum of manmade resources and planned human requirements.

Within each category, the impact of the plant on that component is detailed. This is done both on a primary and secondary basis. Primary influences are caused as a direct result of the project. Secondary influences are possible as indirect results of the project.

There are temporary and permanent impacts as well. Is an effect of the plant a permanent one, or will the effect stop after a certain period of time?

Controls are also a factor in measuring impacts. Impacts can be significantly reduced if adequate precautions, technical controls and good operating procedures are implemented. Therefore, impact analysis must measure the inherent risk of control failures in some instances.

Last, impacts must be classified as to which effects are quantitatively more serious than others. Impact degree is essentially in the analysis and, again, is subjective, depending on the analyst's point of view or propensities.

D. SUBJECTIVITY OF IMPACT ANALYSIS

It is very difficult, if not impossible, for an individual not to introduce subjective feelings and thoughts into an impact analysis. As can be seen from the above discussions on types, classes and degrees of impact possibilities, it is probable that no two analyses will correspond exactly to each other.

Therefore, it is important to understand that some different emphasis might be placed by others on the impact analyses contained in the following chapters. This possibility must be considered to be a normal one in view of the inherent subjective thinking in the material. Additional independent analyses have been made in several areas and the reports of the various consultants involved are presented in the appendix volume entitled "Community Impact Analysis."

E. COMPONENTS OF THE WARRENTON IMPACT ANALYSIS

There are three logical components of the impact analysis of the proposed plant.

1) Impact during the construction period

2) Impacts during the operating period

3) Related port impacts

The impacts are significantly different in each of the three components. For example, during plant construction, most probable impacts are temporary and involve such items as traffic, noise, runoff, and soil erosion. The operating period involves more permanent impacts, and the emphasis is on air quality and plant emissions.

The following chapters are divided into definitive periods as well as a related feature, the port.

VII

VII. PROBABLE IMPACTS - PLANT CONSTRUCTION PERIOD

A. Summary VII-1

B. Additional Interpretive Comment VII-5

VII. PROBABLE IMPACTS - PLANT CONSTRUCTION PERIOD

A. SUMMARY

Attached are summary analyses of probable impacts caused by construction activity of the proposed Warrenton plant upon the natural and manmade systems of the area.

In the case of the area's natural systems, the probable primary and secondary impacts are considered temporary. These impacts include those normally associated with heavy construction such as noise, dust, and exhaust fumes and possible siltation from the disturbance of soil surfaces.

In the case of man-made systems, the probable impacts are, for most part, temporary. The influx of construction workers will have an impact on accommodation requirements. Proper land use and adequate planning for this accommodation need are possible permanent impacts and should be of concern to governmental units, the company, and concerned citizens.

A major impact is economic. Numerous local subcontracts for local purchases of goods and services as well as the plant construction payroll over the 2½ year construction period will provide an economic impetus to the area. This can be a positive impact and provide the financial base for mitigation of probable adverse impacts.

VII. SUMMARY OF PROBABLE IMPACTS – PLANT CONSTRUCTION PERIOD

NATURAL SYSTEMS

Category	Impact Description	Primary Impact	Secondary Impact	Controls	Impact Classification	Temporary or Permanent
Geology & Soils	Approximately 160 acres of soil disturbed by grading and filling. Site already rough-graded and has been weathered and drained for five years. Erosion controlled. Existing soil quality will not change. No crops or mineral resources being developed currently. Soil quality limits use. Pilings to be driven will affect only local siltstone consistency.	Some change in siltstone and clay consistency of site soil as result of working of soil and piling.	None	Normal procedure is to cross-check actual soils with geological tests to verify geological assumptions and tests are correct. This occurs during setting of piling.	No change	–
Topography	Existing site is rough-graded. Requires finish grading, road ballasting and excavation for foundations for plant buildings and equipment. Completed buildings will alter lay of land and aesthetics.	Excavating work and road ballasting. No major change in existing topography.	Skyline will change with completion of buildings.	Accepted engineering and construction practices. Landscaping of site.	Low negative based on secondary effects.	Temporary
Climate and Air Quality	Construction activity. There will be dust and noise from equipment which could, if not controlled, disturb wildlife and residents of the area. Exhaust fumes from construction equipment will be emitted to air. Incidental fugitive dust will be present.	Dust, noise and additional traffic. Wildlife will move from the immediate construction area.	Inconvenience to local residents.	Maintain equipment properly to meet standards and minimize effects. Wetting of site to control dust.	Low negative because of secondary impacts.	Temporary
Water Regimen	Silt and sediment in runoff and drainage during construction could affect quality of local water table and cause turbidity in drain-off streams such as the Skipanon. Additional water demand for domestic use.	Water runoff from the site would drain into settling ponds. Pond outflow might carry additional silt.	Uncontrolled water turbidity could affect aquatic ecosystems in runoff streams.	Turbidity would be controlled by settling out earth solids. Proper drain control ditches and maintenance of the site to prevent contamination of water runoff. Settling pond will control drainage turbidity.	Low negative based on successful controls, otherwise it could be a moderate negative.	Temporary
Biotic Community	Construction should have no direct effect on wildlife habitats, plant associations, natural cover, conservation areas, or estuary. Since the site is already leveled and graded, any such disruption occurred years ago. Human activity in area will disturb wildlife.	Wildlife will be denied use of site and peripheral areas.	Potential water turbidity might cause inconvenience of fishermen on Skipanon or other site drain-off streams.	Control gained through the runoff settling pond and via good site maintenance. Limit human and equipment activities to the construction site area.	Low negative	Temporary

VII. SUMMARY OF PROBABLE IMPACTS – PLANT CONSTRUCTION PERIOD

MAN–MADE SYSTEMS

Category	Impact Description	Primary Impact	Secondary Impact	Controls	Impact Classification	Temporary or Permanent
Community Value	Temporary impact on community values will be felt as construction workers come into the county. Probably not cultural or religious, but off-hour social pressures will be felt in leisure places such as cafes and taverns. Possible community conflict resulting from debate over desirability of the plant.	Additional demands on public facilities. Social pressures. Division in the community.	More people means more traffic, auto exhaust, sewerage, and wastes. The secondary impact of more people, particularly temporary construction workers will be felt.	Flexibility, tolerance and absorption of temporary social pressures by community. Affirmative efforts by church groups, community leaders, service clubs, etc.	Low negative for potential social ills and annoyance.	Temporary
Population Patterns	There will be up to 1800-1900 construction workers at the peak construction period. A portion will come from the existing local labor market. Some of these temporary workers will probably "group" by themselves socially and will require accommodation. Pressures will be placed on mobile home parks, motels, and rooming houses. Some of these people will remain after the construction period.	The construction workers' influx will primarily have an impact on accommodation requirements. Area housing is currently marginal. The influx will amplify problem.	Same as above.	Development of adequate mobile home parks and satisfactory rooming accommodation.	Moderate negative for accommodation and population impact.	Temporary
Land Use	Additional people using additional areas.	Inadequate accommodation for workers. Marginal and transient accommodations might cause a future blight.	Lack of accommodation could lead to other land use abuses. Inappropriate use of available recreation areas, problems of safety, disease, and fire, etc. Also zoning violations and policing problems would ensue.	A county, company and citizen effort to properly plan and provide for the accommodation for construction workers.	The range is High negative if accommodation planning is done poorly to a High Positive if done well.	Possible permanent but more probably temporary
Community Facilities	Existing schools, parks, libraries, hospitals, and cultural centers will experience additional use.	Increased use of facilities, but existing slack can provide for added use. Exception might be the parks, where trailers used for accommodation will have to be policed.	Possible higher tax requirements.	Community planning.	Low negative	Temporary

VII. SUMMARY OF PROBABLE IMPACTS – PLANT CONSTRUCTION PERIOD

MAN–MADE SYSTEMS

Category	Impact Description	Primary Impact	Secondary Impact	Controls	Impact Classification	Temporary or Permanent
Utilities	Existing utilities are adequate for construction. However, sewage in areas required for new accommodations could be a problem.	Construction activity will place additional demand for utility services.	Interrupted service.	An accelerating effort is required to plan for accommodation and utility requirements, particularly proper sewage.	Low negative strictly on the accommodation/sewage problem.	Temporary
Transportation	Additional local traffic, particularly in the area of the plant site. Existing highways, railroads, and the port will have added traffic and use.	Added traffic, particularly at shift time.	More traffic and local auto/truck use means more exhaust fumes and some heavy-duty use of roads. More local maintenance. Parking for increased shopping might be another secondary problem. Increased safety and police requirements.	Encouragement of State to complete the new coastal Highway 101. Other access roads can be specially constructed.	Low negative	Temporary
Economic	The plant will cost $200 million to build. About $21 million will be labor cost. Significant supplies and materials will be purchased locally. Subcontracts will be let to local companies.	Much of the construction payroll will be spent in Clatsop County for goods, services, and housing. The economic impetus will be notable, and also, subcontracts let locally will assist area shops.	Not determined.	Not determined.	High positive	Temporary but could lead to long term improvement.
Local Government	Impacts for added services, planning efforts, and accommodation concerns.	Providing for increased demand for fire protection, safety and security, health and hospital services.	Possible increases in taxes.	Lead-time planning. The local departments, agencies and governments feel they can handle the problems of a construction project.	Low negative	Temporary

B. ADDITIONAL INTERPRETIVE COMMENTS

Temporary Population Influx and Land Use

The construction period is scheduled to last for 2½ years; spring of 1975 through to fall of 1977. The project will employ approximately 1,000-1,100 workers by the summer of 1975, maintain this work force to the summer of 1976, reach a peak of 1,800-1,900 in the summer of 1976, and decline steadily through to the fall of 1977.

According to a Kaiser Engineering survey in August 1973, approximately 800-900 construction workers could come from the county labor force, and about 200 construction workers would commute daily from their homes in adjacent counties.

From the spring of 1976 through to the fall of that year, in-migration of construction workers could reach a maximum of approximately 800. These workers will be general construction workers looking for inexpensive accommodations. Some of this demand may be absorbed by motels, rooming houses, and rental accommodation normally used for vacation accommodation. Some of these construction workers may prefer to bring trailers or campers, creating additional needs for the siting of this accommodation. Approximately 60 percent of this in-migrant group of construction workers could be expected to bring their families.

There is not current information available concerning accommodation that could be available to in-migrant construction workers.

The following illustrates projections of accommodation demand for construction workers:

For the construction periods of spring 1975 to spring 1976, and winter 1976-77 to completion:

Construction force	1,000-1,100
Local Hire	800-900
Commuters	200
In-Migrants	up to 100

For these time periods, approximately two years, the impact of construction on local accommodation, up to 100 units, may be met by existing units available and by existing recreational vehicle parks. Some conflict over use of vacation accommodation is possible. Should local hire potential be less than the Kaiser Engineering survey forecast, in-migration will increase and the need for construction worker accommodation could exceed that which is available locally.

For the peak construction period, summer 1976, for approximately six months:

Construction force	1,800-1,900
Local Hire	800-900
Commuters	200
In-Migrants	up to 800

During the peak period of construction activity there could be an accommodation need of up to 800 units. The actual number of units required will depend upon available local accommodation, existing recreational vehicle parks, and the utilization of vacation accommodation by construction workers.

There will likely be a need for additional construction worker accommodation in the peak construction period in 1976. For the short time period of concern, the most probable means of providing such temporary accommodation is the establishment of additional (and possibly temporary) mobile home and recreational vehicle parks.

A conflict for tourist accommodation can be expected during the summer of 1976. Increased use of tourist accommodation may be expected during the "off-season."

Construction workers will require additional commercial facilities and services such as eating and drinking facilities and convenience retail stores.

New commercial developments must be planned and located to avoid adverse land use impacts and to provide long-term benefits to the region.

Community Facilities

Existing school facilities will be able to absorb anticipated enrollment increases during the construction period. The influx of construction personnel is expected to increase the utilization of parks, libraries, hospitals, museums and other public facilities.

Utilities

Local utility services will experience increases over normal demand during the construction phase. Such increases are expected to fall within present service capabilities.

Transportation

The construction phase can create congestion on new coastal Highway No. 101, specifically between 7-8 a.m. and 4:30-5:00 p.m. as construction personnel arrive at and leave from the plant site. In the event that the new coastal Highway No. 101 construction is under way simultaneous to plant construction, additional traffic disruption can be expected.

Access to the plant site will be provided off Dolphin Road to the west and from old Highway No. 101 to the east. Jetty Street will not be used as plant access. There will be an increase in truck traffic, on both Highway 30 and Highway 26, with the hauling of supplies and equipment to the plant site.

The railroad will increase freight volume to the area.

Harbor Airlines, and the locally-based flight service can expect additional passenger needs. The airport will experience higher use and an increase in air traffic.

Economics

The plant will cost over 200 million to construct. In excess of $21 million will be labor costs. The payroll, plus local goods and services purchased, will affect

the local economy. It is suggested that local service facilities will experience the most economic benefit relating to construction employees.

Local Government

The influx of workers during construction will increase demand for fire protection, safety and security, health and hospital facilities. Government services indicate a present ability to absorb the impact of the construction phase. In the past this ability was demonstrated during the construction of the Columbia River Bridge and the paper mill at Wauna. In interviews with department heads in local government, they have stated that, during the previous periods of heavy construction, their volume of activity increased, but that the needs remained within the capabilities of their departments.

VIII

VIII. PROBABLE IMPACTS - OPERATING PERIOD

A. Summary. VIII-1

B. Additional Interpretive Comments VIII-6

Natural Systems. VIII-6

Climate, Meteorology, and Air Quality . . VIII-6

Water Regimen, Watersheds
Columbia River Estuary. VIII-7

Biotic Community. VIII-9

C. Additional Interpretive Comments VIII-11

Manmade Systems. VIII-11

Land Use - Probable Development pattern . VIII-11

Impact upon the region. VIII-13

Summary of impacts. VIII-16

Community Facilities. VIII-17

Utilities VIII-19

Transportation Systems. VIII-22

Economic. VIII-23

VIII. PROBABLE IMPACTS - PLANT OPERATING PERIOD

A. SUMMARY

Natural Systems

The proposed aluminum plant will have impacts on the natural systems of the area. The plant will emit a variety of process residuals and insufficiently controlled emissions would adversely impact the natural systems.

The plant will be equipped to control and limit these emissions to amounts less than state standards.

Dispersion models indicate ambient concentrations of controlled emissions will be below accepted limits.

The plant will not discharge liquid process effluent from the plant site. Process water will be treated as necessary and recycled within the plant process water system.

Sanitary-water discharge from the plant will enter the Warrenton sewage treatment facility.

Stormwater at the plant site will be collected in an on-site retention pond. During periods of heavy or continuous rainfall the pond may overflow to natural drainage channels leading to the Skipanon River. Amax will design the process water system so that retained stormwater can be used as a source of makeup to the process water system.

Solid waste generated in plant operation which cannot be recycled, or sold to others, will be disposed of in the Clatsop County sanitary landfill.

Manmade Systems

The major favorable impact of the proposed aluminum plant is economic--a large, steady payroll, increased demand for local goods and services, significantly more direct and indirect spendable income for the community and substantial additional tax resources.

This new economic base, in an existing area of static economy can and should be put to good use through intensive and aggressive planning.

The economic benefit can alleviate or eliminate any adverse impacts of the plant, and combined with aggressive planning, can have a positive influence on land use, community facilities, utilities, transportation systems, schools, etc.

The following analysis of impacts covers a large spectrum of possible impacts. Land use is the major element of impact analysis under manmade systems. This element, in final analysis, pulls together value systems, population trends, community facilities, utilities, transportation and local government.

VIII. SUMMARY OF PROBABLE IMPACTS – PLANT OPERATING PERIOD

NATURAL SYSTEMS

Category	Impact Description	Primary Impact	Secondary Impact	Controls	Impact Classification	Temporary or Permanent
Geology & Soils	None. Erosion of soil will be limited to erosion by natural runoff.	None.	None.	Adequacy of constructed footings will forestall any geological or soil change. Possible soil erosion will be controlled by landscaping, drainage and paving of work areas.	No change.	Permanent, for life of plant.
Topography	The plant will project a new skyline once buildings are completed. The new coastal Highway 101 will cross one end of the cleared plant site.	Topography and view will change as a result of the buildings.	None.	Landscaping of plant site and architecture of plant buildings.	Low positive as a result of landscaping.	Permanent, for life of plant.
Climate & Air Quality	The plant will emit process residuals, heat and noise.	Effect on Pasquill layers directly over plant. Air contamination above existing amounts. Increased ambient noise level.	Effects of emissions on people and the flora and fauna.	Emissions control devices will control the emissions of gaseous and particulate matter to levels below State standards. Noise control equipment design will control noise levels to meet standards, monitoring will indicate need for any additional action.	Low negative based on potential secondary impacts and effectiveness of controls.	Permanent, for life of plant.
Water Regimen	Surface runoff, will go to existing drainage. Plant process water could be discharged to watershed.	Possible contamination from process water discharge and uncontrolled runoff.	Community sewerage requirements might be changed as a result of added homes for plant workers. Additional treated sewerage will be emitted from the plant.	No process water discharge from plant. Drainage system, paved working areas, landscaping, retention pond, and good plant housekeeping will prevent water contamination and debris problems. Providing for additional commu-sewage facilities.	Low positive, based on use of settling ponds and other effective controls.	Permanent, for life of plant.
Biotic Community	Uncontrolled plant emissions, particularly fluoride.	Plant emissions if not controlled, might cause damage to terrestial and aquatic, native and cultivated plants.	Concern of people about effectiveness of controls.	The air emission control system. Proper operation and maintenance of control system. Monitoring program.	Low negative based on controls.	Temporary

VIII. SUMMARY OF PROBABLE IMPACTS – PLANT OPERATING PERIOD

MAN–MADE SYSTEMS

Category	Impact Description	Primary Impact	Secondary Impact	Controls	Impact Classification	Temporary or Permanent
Community Value Systems	Economic benefits may not be distributed as people would like.	None.	New values will be introduced from new people.	None.	No change.	–
Population Patterns	New jobs will involve inmigration of people and families. The effect of new population will be primarily reflected in housing demands and requirements for more goods and services.	Adequate housing will be in demand. The economic impact of more people, particularly steadily employed people, will be pronounced.	The new people will "group" initially since housing space is generally isolated to certain areas. Also, new people must earn their way into the community, and this will take a few years. Therefore, some initial "grouping" can be expected.	The county, company and private developers must cooperate in the planning for adequate housing areas properly serviced. Recognition of housing problem as a continuing one.	A temp. moderate negative from housing problem is offset by perm. high positive economic gains.	Permanent
Land Use	The problem of residential housing, not just for inmigrants, but for plant employees who want to and can afford to upgrade their housing. However, the long-needed upgrading, if planned and done correctly, can be a plus impact. Commercial, industrial, and other uses should not present the same type of problems since adequate space is available.	Provision of housing to meet needs.	Not determined.	Implement a well-balanced land use program.	High positive on the basis of what can be gained by a positive and agressive land use program with a good economic base.	Permanent
Community Facilities	Schools, parks, libraries, cultural centers, etc. will get more use from new residents.	Added use of facilities. Key concerns are the schools and obtaining use and tax balance throughout the county.	Not determined.	The land use program becomes the focus of community facilities problems. Planning by the local governments, company and citizens.	Mod. positive on basis of upgrading possibilities through planning program and improved tax base.	Permanent
Utilities Population	Projected population increase will overload existing utility systems.	Necessary upgrading of county utility systems.	Disturbance of area by ditches, pipelines, interrupted services, etc.	Comprehensive planning by county and local governments to meet demands for increased utility services. (Consolidated water and sewer service district)	Short term low negative but long term low positive.	Permanent
Plant	Plant water and sewer service provided by city of Warrenton.	Additional Warrenton water system storage capacity.	Same as above.	AMAX participation in upgrading Warrenton water system.	Short term low negative but long term low positive.	Permanent

VIII. SUMMARY OF PROBABLE IMPACTS -- PLANT OPERATING PERIOD

MAN--MADE SYSTEMS

Category	Impact Description	Primary Impact	Secondary Impact	Controls	Impact Classification	Temporary or Permanent
Transportation	Increased highway and rail traffic.	Shift change traffic of workers, port traffic, and rail cars crossing at grade will cause additional traffic loads.	Added exhaust fumes. Disruption of traffic patterns.	Highway 101 be built promptly with a plant access; better traffic management.	Moderate negative. Traffic can be alleviated but not eliminated.	Permanent
Economic	The economic impact on the area will be pronounced. Additional payroll, local purchases, and increased tax revenues will provide economic impetus in the area.	More jobs, and more spendable income.	Increased economic stabilization of the area. Expanded community facilities.	Government planning and budgeting.	High positive.	Permanent
Local Government	Additional community needs. Increased responsibilities for local governments.	Programs for utilities and community services.	Citizen participation in local government planning.	"Open planning" within the community.	No change.	--

B. ADDITIONAL INTERPRETIVE COMMENTS - NATURAL SYSTEMS

Geology

The proposed plant will not affect the basic geology of the area. The land form in the vicinity of the site will be modified. Earth will be moved for grading, landscaping and construction. There are no known mineral values on the plant site.

Climate, Meteorology and Air Quality

Operation of the plant will not affect local climate. Heat and water vapour emitted from plant processes will not have any adverse environmental impact. (Source: Technical Notes, H. E. Cramer, Ch. X., Pages 5-6)

The operating plant will be a new noise source in the area. To date, there are no methodologies established on a national level for the assessment of environmental impact due to noise. The United States Environmental Protection Agency has published suggested limits of environmental noise requisite to protect the public health and welfare with an adequate margin of safety. Amax has engaged a consultant to evaluate the noise potential from plant operations and to provide information necessary for the appropriate selection of equipment and noise control procedures.

The plant will emit particulate dusts, sulphur dioxide, and particulate and gaseous fluoride.

All such emissions from the plant will be below the State of Oregon regulatory standards.

Dispersion modeling of the plant emissions forecasts maximum concentrations of total particulate well below Environmental Protection Agency Secondary Air Quality Standards; maximum SO_2 concentrations will also be well below air quality standards.

Maximum monthly average ground-level gaseous fluoride concentrations, calculated at or beyond the boundaries of the plant property, are below 0.5 micrograms per cubic meter for the period February through September.

During the October to January period (the non-growing season) this monthly average may range from 0.5 to 0.6 micrograms per cubic meter in a small area (never extending more than 300 feet beyond the property line) adjacent to the northwestern boundary of the plant.

Present research data on effects of fluorides indicate that this level of gaseous fluoride concentration is below the suggested threshold levels for significant damage to animals or plants. (FLUORIDES: National Academy of Sciences, Page 237.)

Plant emissions and dispersion are further discussed in Chapter X, "UNAVOIDABLE EFFECTS."

Water Regimen

Surface water runoff and natural drainage systems in the county will not be directly affected by the proposed aluminum plant. The impact of increased residential development in the county may affect existing runoff patterns by increasing the drainage flow rate. Residential development normally includes storm water control through ditching, storm sewers, etc.

At the Amax plant site, storm water from the unused area of the site will continue to be absorbed by existing natural runoff and drainage patterns. On the used plant site area, storm water will be controlled by ditching, culverts, etc., collected and held in a retention pond. During periods of heavy or continuous rainfall, overflow from this retention pond will enter natural drainage and reach the Skipanon River.

The calculated potential concentration of fluoride (assuming total solubility) in the collected storm water at the plant site averages 1.4 parts per million (Source: Technical Note, H. E. Cramer). Discharge from the retention pond will be significantly diluted during periods of overflow both by the heavy or continuous rainfall at the plant site and by the storm water runoff in the total common drainage area.

Groundwater

Existing groundwater resources in the county will not be directly affected by the proposed plant.

Residential development in Clatsop Plains may result in development and controlled use of the groundwater resource of the area.

Watersheds

The Lewis and Clark watershed will be affected by the proposed Amax project. Improvements to the present City of Warrenton water system may result in additional submerged land within the watershed. This additional small water body is expected to enhance the wildlife, scenic, and domestic water supply values of the area.

The amount of particulate fluoride emitted from the Amax plant and expected to be deposited in each watershed area in proximity to the plant has been calculated. Assuming complete washing of this deposition into the rivers by rainfall, and assuming complete solution of this particulate, the resultant aqueous concentrations of fluoride are far below those known to be maximum acceptables for either livestock consumption or marine organisms. (Source: E.P.A. Document: Proposed Criteria for Water Quality, Vol. 1., October 1973)

Columbia River Estuary

There will not be a process water discharge from the plant. The Columbia River will receive additional treated discharge from the City of Warrenton sewage treatment plant.

Some air-borne emission from the plant will be deposited over the Columbia River Estuary. Plant emission products, deposited in watershed areas of rivers and streams flowing to the Columbia, can reach the estuary through stormwater runoff to these rivers and streams.

Taking into account the average daily flow of the Columbia River at the Astoria-Warrenton area (Source:

U.S. Corps of Engineers) and assuming the fluoride input to the Columbia as equivalent to the total plant daily emission, the maximum generalized increase in fluoride concentration within the Columbia River can be calculated to be less than 0.15 parts per billion.

A recent report on fluoride concentrations in the Columbia River (Source: Dr. Roy Carpenter, Department of Oceanography, University of Washington, Seattle) shows the variation in background fluoride levels in the Columbia River Estuary is directly proportional to the salinity at any given time. The two extreme cases would be that of essentially fresh water (high flow-outgoing tide) and that of essentially sea water (low flow-incoming tide). These extremes indicate background fluoride levels of 0.1 and 1.3 parts per million respectively. Correspondingly, the conditional effect of plant operations is a calculated increase of between 0.15 percent-0.01 percent above existing background levels. From a practical point of view, the actual plant contribution will be beyond the differentiating capability of standard analytical techniques ("Standard Methods for the Examination of Water and Wastewater").

Biotic Community

Limited amounts of research have been conducted on the effects of fluorides on clams, oysters, crab, zooplankton, fishes, or other organisms present in the Columbia River and the Coastal Pacific Ocean.

Oregon State University has undertaken a literature review to determine the present status of knowledge of fluorides in estuarine and marine systems. In this literature search no responses to fluoride levels below one part per million were found for estuarine or marine organisms.

An Environmental Protection Agency document: Proposed Criteria for Water Quality, Vol. 1, October 1973, proposes that concentrations of fluoride in excess of 1.5 milligrams per litre (1.5 ppm) in marine or estuarine waters are unacceptable.

In summary, present background levels of fluoride in the estuarine waters of the Columbia are below proposed threshold limits. In order of magnitude, contributions of fluoride to the estuary from plant operations are insignificant.

Considerable research has been documented concerning the effects of fluorides on animals and vegetation.

The volume "Fluorides": National Academy of Sciences, 1971, is an evaluation of world literature on the subject and attempts to provide a complete treatment of the effects on plants, animals, and humans of airborne fluoride. The summary in this volume suggests damage threshold levels for concentrations of airborne fluoride. Calculations of airborne fluoride from the Amax plant are below these threshold levels at or beyond the boundaries of the plant site.

Standards

The State of Oregon has adopted fluoride emission standards for new primary plants that are the most restrictive in the nation. Construction of the proposed plant in Oregon will, correspondingly, help ensure a minimum of fluoride emission to the biosphere.

Oregon standards will require the expenditure of additional resources in order to ensure compliance.

C. ADDITIONAL INTERPRETIVE COMMENTS - MANMADE SYSTEM

Community Values

Increased population in Clatsop County will introduce new social and cultural values. Community relationships will change. Existing age distribution will change.

Introduction of new families and increased income will alter the existing social environment.

Population

Two-thirds of the county residents live within the six incorporated cities. Over the past twenty years this population pattern has shown little change.

The topography of the county controls population patterns; existing population densities will be increased in areas available for new housing.

The Company objective is to hire as many local people as possible. This should alleviate the in-migration of people.

The impact and analysis of population is more fully covered under "Land Use."

Land Use - Probable Development Pattern

Residential - Much of the new housing demand created by the Amax project will be satisfied within the communities of Astoria, Warrenton, and Seaside. Residential development in the Clatsop Plains area is likely and some new residential development will also occur in Gearhart. A small amount of new residential development may occur in the Lewis & Clark and Youngs River valleys, and east of Astoria in the Svensen-Brownsmead area.

Each of these areas have problems which may limit development.

- The Clatsop Plains area is currently under a building ban until a comprehensive sewer study is completed and sewers can be extended into the area in conformance with the plan.

- Much of the Warrenton area lies at virtually zero elevation and is subject to tidal flooding and groundwater problems. The main street of Warrenton is supported by pilings.

- The City of Astoria is fairly well built up and has negligible buildable land available.

- The Seaside-Gearhart area is subject to high land prices. Lots run from $2,000 to $18,000 depending on view and location.

- The Lewis & Clark and Youngs River valleys and the Svensen-Brownsmead area lack good access and do not have the urban services needed to support a large amount of residential development.

Two large residential developments are in the planning stage in the region. These are:

- A planned unit development known as Vista Park on the southwest side of Astoria which will contain 400 single-family and multi-family dwellings when all phases are complete, and

- the proposed development of approximately 240 acres in Clatsop Plains known as the "Reed Farm." (Now owned by Pacific Power and Light Company.)

The Vista Hills project has been approved as a planned unit development by the City of Astoria. Pacific Power and Light Company does not currently have a development plan for the "Reed Farm" pending the outcome of the Clatsop Plains sewer study and the Clatsop County Planning Study.

Commercial - Expansion of commercial outlets in the county will take place. New commercial developments will seek locations that will provide exposure to the public.

It is likely that commercial development will occur in downtown Astoria and Warrenton. Shopping centers and

highway-oriented services are under present consideration by developers along portions of Highway No. 101 between Warrenton High School and the Youngs Bay Bridge. Pressure for commercial development may extend along Highway No. 101 south to Gearhart and Seaside.

Industrial - The aluminum plant will not create a significant demand for supportive industry. Supportive trade services such as welding, machine shops, steel fabrication, carpentry, sheet metalwork will occur insofar as such services cannot be supplied by already existing facilities.

The airport property is a logical area for industrial development and is available and zoned for such development. Apart from Astoria or Warrenton, there are sites available along Highway No. 101 east of the plant site adjacent to the County Airport.

Other - Existing agricultural areas which are suitable for residential construction may be developed. Pressure for this development will be greatest in the Clatsop Plains area as well as in the Lewis & Clark and Youngs River valleys.

It is anticipated that existing use of public lands and open spaces will increase. The population may create some additional needs for recreational areas and facilities.

Land Use - Impact Upon the Region

The project will create a need for additional supporting land uses. The proposed plant will employ 777 persons. Employees will be recruited locally to the maximum extent.

The 777 plant jobs will create approximately 446 support service job openings for a total of 1,223 new jobs.

The most useful assessment of local employment impacts is to include all Amax-generated employment, the total 1,223 jobs. These jobs will be filled from local unemployed, from local job-switching and from in-migration.

This assessment is complicated by the difficulty of determining, even approximately, the number of jobs which can be filled locally and the number which must be filled by in-migration. A range of possibilities is given below:

Percent of Local Hire	Number of Local Hire	Number of In-Migrants
70	859	367
60	734	489
50	611	612
40	489	734

Registered unemployment in Clatsop County is approximately 800 persons. Additionally, the local labor pool can be increased by non-registered unemployed; by part-time and seasonal workers seeking full-time employment; by young adults who, with opportunity for employment, will chose to remain in the County, (and possibly, young adults who will return to the County because of improved employment opportunity).

Considering this total local labor pool, it is projected that in-migration may be limited to 600-700 new employees (and their families) over the initial years of the plant's operation.

The impact on housing is equally difficult to assess. Existing analyses of housing in Clatsop County are based on 1970 census data. A current census of vacant housing units in the County is not available. Local realtors indicate a present shortage of vacant units.

Using an employee-per-housing ratio, (Source: Lord & Associates) and utilizing the in-migrant figures from the preceding table, a housing impact is summarized below.

Using a persons-per-household multiplier (Source: Lord & Associates) a population impact is also summarized below.

% of Local Hire	No. of In-Migrants	*No. of Housing Units Required	Population Increase No. of People
70	367	327	1047
60	489	435	1392
50	612	545	1744
40	734	653	2090

(* Worst case - assume no existing vacant housing units.)

Thus, the demand for new housing could range from less than 327 units to a high of 653 units dependant both on actual in-migration and on the existing stock of vacant housing units.

A realistic projection would suggest new housing requirements in the range of 500-600 units. Thus, the projected population increase in the County due to the plant would be in the range of 1,600-1,920 people.

The aforementioned projections, in-migration, housing requirements, population growth, could be increased if the potential for local hire from the unemployed pool has been overestimated. Also, if as suggested, in the Consultant's appendice volume "Community Impact Analysis", unnecessary in-migration occurs to restore unemployment to its present level, these projections will be increased.

A demand for better quality housing will be created by increased purchasing power of plant employees and support service employees. As higher-paid employees' families move up the housing scale, more dwellings will become available to low-income families within the region.

Anticipated annual payroll is $12 million. In addition, local purchases of goods and services are estimated to be $7 million annually. A portion of this increased spending potential will be absorbed by existing business and industry in the region. The increased spending

potential is expected to create a desire for additional business to locate in the region; particularly in Astoria, Warrenton, and along U.S. Highway No. 101 in the vicinity of the project site.

These uses will likely include one or more small-to-medium size shopping centers, individual retail establishments, highway-oriented commercial services, business and professional services, and other miscellaneous commercial establishments.

Existing zoning in the region provides adequate land areas to absorb normal increase in commercial developments which can be expected because of the Amax project.

Land Use - Immediate Plant Vicinity

Only the central portion of the site will be developed for plant activities. The outside perimeter of the site and the unused, graded areas will be left in a natural state and/or landscaped to enhance the scenic values of the developed site.

The project site is located partially in the City of Warrenton and partially in the county. It is zoned for heavy industrial use by both jurisdictions.

There may be pressure from property owners and developers to rezone adjacent agricultural and residential property to commercial and industrial zoning.

Much of this agricultural and residential zoned property is low-lying with a high water table. A detailed study of the natural constraints and logical development alternatives is needed for these surrounding properties to determine public service needs and appropriate zoning classifications.

Land Use - Summary of Impacts

Positive - Positive land use impacts will include:

- Creation of new, higher-quality housing stock.

- Availability of more low-income housing stock as people move up to higher-quality housing.

- Additional, and wider variety of, commercial facilities.

- Additional service industries, creating broader base for the region.

- Planning and implementation for increased utility service such as sewers and water district consolidation.

Adverse - Adverse land use impacts may include:

- A shortage of good quality housing. Such shortage could reach 600 units.

- Temporary housing projects (mobile homes), without adequate services and utilities.

- Commercial and residential development in undesirable locations if county and local planning authorities fail to control expansion.

Community Facilities

Schools - As detailed in Appendix D, a school population model has been prepared based on Intalco-Ferndale experience. The model shows an expected increase in school enrollment, particularly in the primary grades.

Upon our inquiry, school superintendents have advised that sufficient classrooms are available to absorb projected increases in enrollment.

The increased tax funds available to county schools, as a direct result of the Amax project, will allow for planning in relation to upgrading and improving existing school facilities.

To provide more current information on community facilities consultants have presented information in appendix volume entitled "Community Impact Analysis."

Parks - Parks and recreational facilities can expect an increase in utilization. Existing facilities are adequate to serve the population increase.

Libraries - It is anticipated that use of the two public libraries will increase. Existing library facilities are capable of increased utilization.

Hospitals - Current data reveals an average 54 percent utilization rate at hospitals in the county. Existing facilities should be able to meet an increase in hospital population. An increase in utilization of existing hospital facilities may improve the operating economics of these facilities.

Civic - Cultural - Historic - Local and county governments will have challenges to meet as a direct result of the Amax plant. Planning by local government will be a requisite for orderly expansion of residential and commercial facilities, and to provide utility and administrative services to an increased population.

The District Fire Marshal believes that the District Fire system can serve a population increase of several thousand with their present status.

It has been stated by local officials that little, if any, additional force would be needed to complement the existing state, county and local police to maintain public safety.

Present cultural and historic facilities may experience increased use. Fort Stevens, presently requiring advance reservations for camping, may become more popular. Local museums and other historic sites will receive increased use.

Amateur theatricals, art programs, craft groups and similar activities in the county may develop from the influx of new people to the area.

Utilities

Water - Of the existing water supply systems in Clatsop County, the one system directly affected by the proposed aluminum plant is the City of Warrenton water system. It is intended that the aluminum plant will obtain both potable and process water from the City of Warrenton. The expected plant demand on the Warrenton system is 640,000 gallons per day.

Under normal low water conditions, the Warrenton system could supply the plant without affecting domestic consumption. Under periods of extreme drought, and such periods have extended up to 45 days, the capability of the Warrenton system falls short of present demands. Increased water supply will be required for the Warrenton system to maintain service in drought periods for both domestic and plant needs.

Engineering studies may recommend increasing the height of one or more of the existing diversion dams within the Warrenton system to increase total water supply capability. Any design for increased supply capability will recognize the future growth of the area served by the Warrenton system.

The responsibility for undertaking such modifications and improvements to the water system will remain with the City of Warrenton. Capital financing for improving the capability of the Warrenton water system is not expected to create a burden on the City since the additional usage will create additional revenues. If necessary, Amax will underwrite the capital cost of this project in return for prepaid water services within Warrenton's water rate schedule.

The construction of increased supply capability will not affect existing run-off patterns and volumes in the Lewis & Clark and its tributaries. Once supply area is full, stream flows will be normal, a function of rainfall and run-off. Increase of diversionary-type dam height is not expected to affect existing fish access. The final design of this modification will require consultation with the appropriate state agencies.

The positive impact of improving the capability of the Warrenton Water System is twofold. First, the system will be adequate to meet the existing demands on the system, and second, the capacity of the system will meet expected growth within its service area for approximately ten to fifteen years.

At present there are no water lines to or near the plant site capable of serving the plant. Temporary impacts from soil and vegetation disturbance will occur during the tie-in between the plant site and the city water systems.

The increase of population in Clatsop County, resulting from the aluminum plant, can affect other systems in the county. Additional domestic demand on existing systems could tax their present capabilities. Increase in population will add impetus to the county need for a consolidated water service district with the ability to finance, construct and operate water supply treatment facilities for domestic and industrial use.

Sewer - The proposed aluminum plant will utilize the sanitary sewage treatment facility of the City of Warrenton. The sanitary water system at the plant site will be used exclusively for supply to lavatories, water closets, urinals, sinks, drinking fountains, wash basins and showers. The run-off from these sources, collected in the plant sanitary sewer system, will be discharged to the Warrenton sewer system. The maximum discharge from the plant sanitary system has been calculated to be 30,000 gallons per day.

At present the Warrenton treatment facility is operating at about 30 percent of capacity. With addition of the plant sanitary discharge, the Warrenton system will operate at less than 50 percent capacity. Remaining capacity is sufficient to accommodate any Amax generated population growth in the City of Warrenton.

The sanitary sewer line to the plant site would parallel the water line. Temporary impact from soil and vegetation disturbance will occur during the tie-in between the plant site and the city system. Capital cost of

tying in the plant sanitary system to the Warrenton system will be carried by Amax.

Increased demand for residential housing units can affect other sewer systems in the county. Some of these systems may be unable to meet potential demand without expansion and, therefore, local authorities will need to include expansions in their system planning.

Solid Waste - Solid waste generated will be recycled, sold to others or disposed of at a Clatsop County landfill. Much of the solid waste generated at the plant site consists of inert oxides which may be of positive use in county landfill operations.

Electricity - Electrical energy for the proposed plant will be supplied by the Bonneville Power Administration. Industrial users of Bonneville power, such as the proposed aluminum plant, are supplied "industrial firm" power on a contract basis. The supply of this "industrial firm" energy is subordinate to all demands on the Bonneville system to supply domestic, institutional and commercial requirements.

Amax electrical energy use should have no adverse effect on local electrical supply in the county.

Bonneville Power Administration will provide transmission line service to the plant site. Impacts on the area, resulting from land acquisition, clearing and through transmission line construction, are discussed in the BPA impact statement.

BPA is expected to have sufficient power in 1977 et seq. to supply the plant and the normal demand growth in other user areas. Dr. Herschel Jones of CH_2M Hill has prepared a report on the impact of the Amax consumption of 320 megawatts of BPA electric energy. This report is included as Appendix G.

Pacific Power and Light has indicated capability to distribute power to increased residential and commercial users in the county. To the extent that new users are located beyond the terminals of present power lines these lines will be extended with no known adverse impact.

Fuel - The Amax plant will consume fuel energy. (Amended permit application estimates an annual consumption of fuel energy equivalent to two million therms of natural gas and six million gallons of residual fuel oil.)

Any natural gas contracted for will be on a firm basis, and would be curtailed before there would be any affect on firm supply to local consumers. A gas service pipeline exists along the south boundary of AMAX property and extension into the plant area will not involve off-site disturbance.

Any fuel oil contracted for will be trucked or railed to plant-site storage.

Communications

Northwest Bell is capable of providing communication services to the plant. Area radio stations will have larger audiences. County newspapers may benefit from an increased population.

Transportation Systems

Streets and Highways - During plant operations there will be 277 employees working days and 500 on rotating shift work; therefore -

	People Traveling To Work	People Traveling From Work
8 a.m.	402	125
4 p.m. - 5 p.m.	125	402
12 a.m.	125	125

During the hours of shift change, there will be an increase in traffic on the coastal Highway No. 101. Most of this traffic will be using the new coastal Highway No. 101 with access at Dolphin Road to Clatsop Plains and south, and old Highway No. 101 into Astoria and the Lewis and Clark area.

Increased truck traffic will occur between the plant site and the Port of Astoria for transport of export ingot to the Port. (Should alumina be transported by truck from the Port of Astoria to the plant site this will create additional truck traffic.)

The incidence of new residential and commercial development will create a demand for increased local and county access roads. Development of this road mileage is an integral part of the local planning function.

The impact of increased traffic is covered in more detail in the Consultant appendice volume, "Community Impact Analysis."

Public Transit - Existing public transit schedules, will not serve the plant adequately.

The present public transit system may be able to reevaluate existing equipment and schedules to accommodate increases in population.

Railroads - The Burlington Northern Railroad will experience increased traffic. A spur line will be laid by Burlington Northern to serve the plant. Rail traffic to and from the plant may delay highway traffic.

It is estimated that increased volume of freight to the Burlington Northern will approximate $4 million per year. It is possible that this increased volume of business in the local area will require additional local employment with the railway.

Airports - Increase in passenger utilization may result in improved facilities, flight schedules, etc.

Economic

The proposed plant will provide permanent-type employment for 777 persons. Economic analysis projects additional employment for 446 people in support service jobs. The proposed plant will have an annual payroll of $12 million (1974 dollars). Support service jobs will provide an estimated $6 million in payroll. million in payroll.

According to the economic study made by OSU (See Appendix F) the new payroll income in the area will result in an increase of purchasing power in the county of $9 million.

Property taxes are expected to be about $2.0 million per year. Tax revenues generated by the plant are projected to be greater than costs for expanded services and facilities in the County.

Annual local purchases from the plant will approximate $7 million. The OSU report indicates these purchases will result in $9 million being added to business transactions in the county.

The impact of this economic input to the area is significant. It will assist the economic base for housing, services and supportive business expansion. The proposed plant will provide a more stable economic base in the county.

The increased economic activity, increase in-migration population and the demand for commercial and residential property may result in further increase in values.

Local Government - Local governments will be responsible for planning changes in the county. Planning for residential and commercial growth will challenge local government. Government services may require increases in personnel.

State Government - Will receive increased income tax revenues from both corporate and personal sources.

Awareness of Impacts

The importance of analyzing environmental impacts publicly is an absolute necessity. The Company has conducted open forums for the dissemination of information and impacts.

Impact Analysis From Consultants

As a supplement to this chapter, the appendix volume "Community Impact Analyses" includes impact analyses prepared by consultants engaged by the company.

IX

IX. RELATED IMPACTS - PORT

A. Port Impact Assessment IX-1

B. Discussion IX-1

IX. RELATED IMPACTS - PORT

A. PORT IMPACT ASSESSMENT

The analysis contained in this chapter is not as complete as that which involves the plant proper. A detailed impact statement will be required from the Port. The information contained herein gives some indication of the impacts resulting from operation of Amax facilities at the proposed port. Some further discussion of port impacts are covered in Appendix A.

B. DISCUSSION

The land area at Pier No. 3 to be used for the port facility is zoned for industry.

Construction, driving of piles, riprapping for shoreline protection, may have a temporary adverse effect on marine organisms and feeding bird life in the immediate area.

The alumina unloading and handling facilities will provide for the best degree of dust control. Regardless of equipment design and operating procedures, accidental minor spillages can occur. Alumina dust may reach the river, either windblown or through the storm sewers serving the port area. Alumina is insoluble in water and although it will not react chemically, its physical presence may be visible.

The port is a working area with grain elevators, warehouses, log storage, etc. The new facility will alter its existing appearance and be visible to traffic in Astoria and upland residents within the city.

Services to the facility--water, sewer, electricity, gas--will be provided from existing utility services in the City of Astoria.

Traffic from the port will traverse Hamburg Street to the intersection of Highway No. 101 and travel Highway

No. 101 to the plant site. Access to and from the port area from Highway No. 101 could be congested in periods of ingot transport to the Port.

The proposed port facility will increase the present volume of ship traffic on the river.

Amax will use the proposed port facility four to six days a month. This added facility at the Port of Astoria creates a potential for increased general cargo revenues to the Port of Astoria.

X

X. UNAVOIDABLE EFFECTS

A. Summary. X-1

B. Natural Systems. X-2

Air Quality. X-2

Meteorological Effects X-4

Biotic Community X-6

C. Manmade Systems. X-13

X. UNAVOIDABLE EFFECTS

A. SUMMARY

The analysis of impacts covered in previous chapters discloses that several are unavoidable. The fact that such effects are unavoidable does not necessarily make such effects adverse. The major environmental effects which cannot be avoided as a result of the proposed plant are discussed in this chapter.

The unavoidable effects in the area of natural systems:

- Effects on Air Quality
- Meteorological Effects
- Effects on the Biotic Community
- Use of energy

In man-made systems, there are also unavoidable effects:

- Population Growth
- Effects on Land Use
- Traffic Increase
- Economic Growth

B. NATURAL SYSTEMS

Air Quality - The aluminum reduction plant to be constructed by Amax Pacific Aluminum Corporation in Warrenton, Oregon will use the best available technology to control air emissions. (Ref. Amax amended permit application, June 28, 1974.) The plant will emit gaseous F and particulate F to the local atmosphere. Additionally, CO, CO_2, and SO_2 will be emitted to the local atmosphere.

Air-borne residuals are covered in detail by the amended permit application submitted to the Oregon Department of Environmental Quality. This application details specific discharge sources and controls.

Even though Amax recognizes that the projected emissions from this plant will be within the Oregon State Standards for new primary reduction aluminum plants, the actual emissions will be measured on a regular basis through an emission monitoring program. The detail of this emission monitoring program will be submitted to, and approved by, the Department of Environmental Quality as part of the amended permit application.

The dispersion of Fluoride, the most pertinent emission resulting from plant operations, is detailed in a study entitled: "Calculated Impact on Ambient Air Quality of Fluoride, SO_2, and Particulate Emissions from a Proposed AMAX Aluminum Plant at Warrenton, Oregon," by H. E. Cramer and J. F. Bowers, Jr., 12 July 1974. This study takes into account meteorological and other factors relating to the dispersion of gaseous and particulate fluoride and sulphur dioxide. This study has been submitted to the Department of Environmental Quality as part of the amended permit application.

The results of the concentration calculations described in this report are summarized as follows:

"The calculated maximum 3-hour ground-level SO_2 concentration produced off the plant property by the combined sources is 163 micrograms per cubic meter, or 12.5

percent of the 3-hour Secondary Air Quality Standard; wind persistence data for the Astoria, Oregon Airport indicate that this concentration can be expected to occur about 55 times per year, or 1.9 percent of the time.

"The calculated maximum 24-hour ground-level SO_2 and total particulate concentrations produced off the plant property by the combined sources, without any adjustments for wind persistence, are 110 and 91 micrograms per cubic meter, respectively.

"When adjusted for wind persistence, the calculated maximum 24-hour ground-level SO_2 concentration produced off the plant property by the combined sources is 51 micrograms per cubic meter, or 14 percent of the 24-Hour Primary Air Quality Standard; this maximum can be expected to occur about once per year, or 0.3 percent of the time.

"When adjusted for wind persistence, the calculated maximum 24-hour ground-level total particulate concentration produced off the plant property by the combined sources is 29 micrograms per cubic meter, or about 19 percent of the 24-Hour Secondary Air Quality Standard; this maximum also can be expected to occur about once per year, or 0.3 percent of the time.

"The calculated maximum annual average ground-level SO_2 concentration produced off the plant property by the combined sources is 7.4 micrograms per cubic meter, or about 9 percent of the Annual Primary Air Quality Standard.

"The calculated maximum annual average ground-level total particulate concentration produced off the plant property by the combined sources is 15.6 micrograms per cubic meter, or 26 percent of the Annual Secondary Air Quality Standard.

"Maximum monthly average ground-level gaseous fluoride concentrations calculated at or beyond the boundaries of the plant property are below 0.5 micrograms per cubic meter for the period February through September.

"During the October through January period, monthly average ground-level gaseous fluoride concentrations may range from 0.5 to 0.6 micrograms per cubic meter in a small area adjacent to the northwestern boundary of the plant property; however, this area never extends more than 300 feet beyond the property line."

Noise

Plant construction and the operating plant will be a new noise source in the area. Amax has engaged a consultant to evaluate the noise potential from plant operations and to provide information necessary for the appropriate selection of equipment and noise control procedures.

Meteorology

H. E. Cramer's Technical Note:

"Thermal Emissions from the AMAX Aluminum Plant at Warrenton, Oregon"

as included in Appendix B explains the effect of the operation process heat on the air layers above the plant. The report indicates:

"....that the thermal discharges to the atmosphere resulting from the operations of the AMAX aluminum plant will be almost completely dissipated in a thin elevated air layer above the plant property. The average height of the top of this layer is about 600 feet above plant grads and the base of the layer is about 75 feet above plant grade. The net effect of the thermal emissions from the AMAX plant operations is thus to increase the ambient air temperature immediately above the plant property. Air temperatures beyond the plant property should not be affected. Because the thermal discharges are buoyant and therefore continue to rise until their temperature is reduced to ambient, none of the excess heat content will reach the ground."

Visible Emissions

H. E. Cramer has also commented on the visibility and potential meteorological effects of water vapor contained in emissions from the plant in the Technical Note:

"Visible Emissions from the AMAX Aluminum Plant at Warrenton, Oregon"

The only visible emissions from the AMAX Aluminum plant at Warrenton, Oregon are expected to be from the Secondary Scrubber System and the four cooling towers located near the Metal Services Building. The discharges from these facilities contain appreciable amounts of water vapor which may condense to form water droplets. Discharges from the Primary Scrubber System, Carbon Baking Plant and Metal Services Building contain insufficient moisture for the formation of water droplets even at very low ambient air temperatures.

The extent to which the discharges from the Secondary Scrubber System and the cooling towers will be visible depends on the ambient humidity. When the ambient humidities are low, the Secondary Scrubber System emissions will probably not be visible and the cooling tower emissions will be visible only for very short distances above the exit points. At ambient relative humidities of 90 percent, the Secondary Scrubber System emissions are calculated to be visible for a maximum distance of about 350 feet from the exit points and the cooling tower emissions are calculated to be visible for a maximum distance of about 800 feet from the exit points. The maximum rise of the cooling tower visible emissions above plant grade is calculated to be 300 feet and in most cases the actual rise will be considerably less. The persistence of condensed water droplets in the cooling tower emissions and the Secondary Scrubber System emissions beyond the plant property boundaries appears possible only when the ambient humidities approach 100 percent and conditions are favorable for natural fog formation. This means that the emissions from the AMAX Aluminum Plant are not expected to produce any restriction to visibility beyond the plant property boundaries, even under high ambient humidity conditions,

unless the visibility in the area surrounding the plant is restricted by natural fog. The total amount of water vapor added to the air by the emissions from the AMAX Aluminum Plant will be negligible compared to the amount of moisture added by evaporation from the Pacific Ocean and other bodies of water near the plant site. Also, the occurrence of fog and low stratus clouds in the Warrenton-Astoria area will be unaffected by plant emissions. This conclusion is supported by the results of a study by Martin (1974) which showed that a group of large cooling towers emitting approximately 1,000 times as much water vapor as will be contained in the emissions from the AMAX plant have had no detectable effect on the local climate.

Biotic Community

Dr. O. C. Compton of Oregon State University developed an inventory of flora in the Warrenton area. This study encompassed 1968-1970 and concentrated on fluorine levels in plants, cultivated, native, woody and herbaceous. This inventory is contained in Appendix G. Dr. Compton also inventoried domestic animals in the region and found limited numbers of dairy herds. Range beef, feeding in marsh grasses, are located in the lowlands and sandspits in the airport and Skipanon Point areas.

An off-site monitoring program will be implemented as approved by the Oregon Department of Environmental Quality. This monitoring program is designed to provide continuing measurement data relative to the characterization of the biotic community in the Warrenton area.

A document has been prepared at the request of the Air Pollution Control Office of the Environmental Protection Agency to provide a complete treatment of the effects on plants, animals, and humans of airborne fluoride. (FLUORIDES: National Academy of Sciences, 1971)

Excerpts from this document follow:

"It is evident that the more important aspects of fluoride in the ambient air is its effect on vegetation and its accumulation in forage in amounts that lead to harmful effects in cattle and other animals (pg. 240)."

"The average concentration of fluoride in forage that appears to be important for animals is 40ppm. Estimates suggest that a fluoride accumulation of 40ppm in forage would be achieved in 30 days at a mean hydrogen fluoride concentration in the air of 0.33-1.3 ug/m^3. However, these estimates do not take into account variability in exposure to fluoride, rate of plant growth, or the effects of weathering in a field condition (pg. 237)."

"The available data suggest that a threshold for significant foliar necrosis on susceptible species or an accumulation of fluoride in forage of more than 40ppm would be a 30-day average air concentration of gaseous fluoride of about 0.5 ug/m^3 (pg. 237)."

"...., we must rely on the evidence that airborne fluoride concentrations that produce no plant response contribute quantities of fluoride that are negligible in terms of possible adverse effect on human health and offer a satisfactory margin of protection for man (pg. 221)."

The H. E. Cramer report forecasts ambient air concentrations below suggested threshold levels.

Amax has provided the following consultants with the H. E. Cramer reports and Dr. O. C. Compton's inventory of plants and animals in the plant-site area for the purpose of soliciting their professional opinion as to the damage potential of emissions from the Warrenton plant. These consultants are recognized as experts in the evaluation of fluoride effects on various aspects of the biotic ecosystem.

The following professional people have been requested to prepare opinions of the damage potential of the emissions from the Warrenton plant:

Dr. Delbert C. McCune
Boyce Thompson Institute
of Plant Research

Dr. Donald Adams, consultant
Washington State University

Dr. J. W. Suttie
Department of Bio-Chemistry
University of Wisconsin

Dr. G. R. Spencer
Department of Veterinary
Science
Washington State University

Dr. William F. Harris
Veterinarian
Puyallup, Washington

Dr. J. L. Shupe
Department of Veterinary
Science
Utah State University

Dr. David J. Moore
Biology Professor
Radford College

The responses from the foregoing list of experts are included as Appendix H.

Selected excerpts from these responses are:

Dr. Treshow:

"Based on the Cramer and Compton reports, no impact on vegetation is anticipated from fluorides in the vicinity of the proposed AMAX Aluminum Plant at Warrenton, Oregon.

"The calculated concentrations are well below any injury threshold and completely safe for any plant species." (This comment is in reference to SO_2).

"Nevertheless, based on the documents examined, the impact projected on vegetation would seem to be minimal and insignificant. But because of the uncertainty of this judgement, I would recommend that further calculations be made:

(1) Specifically, it would be helpful to calculate isopleths for the projected maximum 2 hour averages and 24 hour averages, and determine how many times a month such peaks might be expected. From a practical standpoint, it

would only be necessary to calculate these for the growing season of April through September."

Dr. McCune:
Dr. Weinstein:

"One deficiency in the Cramer and Bowers report is the fact that they did not address themselves to short-term exposures (i.e., those that seem reasonable in accordance with the persistence data). Because of low persistence (less than 8 hours), one should know the probability that at some point at or beyond the plant boundary, in a 4-hour averaging period, the concentration of gaseous fluoride will be equal to or greater than 8 ug/m^3 (cited by Bennett and Hill as the threshold for reduction of photosynthesis in alfalfa and barley) or other comparable dosages."

Dr. Adams:

"Based upon the mathematical relationship shown in Equation 1 and the field data from northwestern Washington, Figures 1 and 2, it appears that the predicted ground level concentrations of gaseous fluorides (Cramer Report) will not produce forage fluoride concentrations which would exceed the Washington state fluoride standards. The data derived under comparable field conditions shown in Figures 1 and 2 are believed to provide a more reliable predictive base than estimates of forage fluorides calculated from the available mathematical expression using coefficients derived under closely controlled laboratory conditions.

"It is concluded that the Washington state forage standards will not be exceeded when viewed both by the mathematically derived relationships and by actual field measurements obtained in a nearby area. Since the Washington state fluoride standards were established to provide a margin of safety for dairy cattle, the predicted levels or airborne and forage fluorides in the vicinity of the Warrenton plant should pose no threat to dairy cattle.

"1. The atmospheric diffusion model for Warrenton should be used to provide predicted short-term (3-Hour) ground level fluoride concentrations and the frequency (and duration) of occurrence of these fumigations.

2. Further computations or estimates of monthly accumulation of fluorides in foliar tissue should be deferred until the above noted short-term concentrations and frequency of occurrence data become available. Utilization of these new data will provide more realistic predictions of foliar fluoride levels than are presently available (7)."

The above comments reveal the need for information relative to short-term concentrations of fluorides.

Amax asked Dr. Treshow to expedite with H. E. Cramer personnel the specific nature of short-term calculations that he felt was necessary in this regard. The Cramer report on this subject will be provided to Dr. Treshow, Dr. McCune, Dr. Weinstein and Dr. Adams in order that they may further evaluate the damage potential of emissions from the Warrenton plant. The Cramer report and these further evaluations will be submitted as an addendum to Appendix H of this document.

At this time, on the basis of his discussions with Jim Bowers of H. E. Cramer, Dr. Treshow has responded to Amax (this response is included in Appendix H). This reponse concludes as follows:

"If Jim's projections are correct though, toxic thresholds will never be reached beyond the plant boundary even for 2 hours. Again, assuming the correctness of the short-term projections, even the most sensitive plant species known would not be injured or even threatened by the AMAX emissions."

Dr. Spencer:

"Among wild animals deer and elk are probably no more susceptible than cattle. Birds and rodents are all highly resistant and not affected by doses that severely cripple cattle.

"The available data and calculations from the 1974 Cramer Report indicate that average fluoride in the Warrenton area will be within the level of tolerance for domesticated and wild animals during the operation of the proposed aluminum reduction plant. There should be no significant effect on livestock production."

Dr. Shupe:

"The conversion of calculated ambient air data to meaningful and reliable predictive fluoride effects on livestock and wildlife is very difficult and hazardous.

"Based on our studies (controlled and epidemiological) I am unable to extrapolate the reports and calculated air fluoride levels to safe and reliable animal protection.

A. There are too many unknown and conversion factors.

B. Even the conversion of field vegetative fluoride levels has restricted and limited value in predicting the effect and degree of fluoride toxicosis in animals.

"I commend you for your pre-construction and pre-operative endeavors and activities.

A. Preventive measures are better and cheaper than curative procedures.

B. It is very important and advisable to obtain pre-operative information and background data, so that, future conditions and effects can be properly determined and evaluated."

Dr. Harris:

"Since the isopleths of ground level gaseous and particulate fluoride concentrations are projected to be both minimal in quantity and limited in distribution and since other aluminum reduction plants in operation at other locations under different physical conditions are known to carry out their functions with only minimal effects on neighboring livestock, it can be postulated

that AMAX Aluminum Corporation should probably experience little or no economically adverse animal effects due to its Warrenton, Oregon plant's operation."

Dr. Suttie:

"The yearly average forage fluoride concentration should not exceed 40 ppm at any point in this area.

"The performance (meat or milk production) of cattle raised in this area should not be effected by the levels of forage fluoride which will be present."

Dr. Moore:

"In my professional judgement, based on the experience I have had studying the effects of fluoride on estuarine organisms (oysters and blue crabs), the calculated levels of fluoride emissions will have no measurable effect on the quality or quantity of estuarine and marine organisms in the waters of the Columbia River or the Pacific Ocean near the aluminum plant site.

"It is my belief that the relatively small concentrations of both particulate and gaseous fluorides calculated to be emitted throughout the year will be insignificant and will not affect these organisms in any way."

Use Of Energy

The proposed plant will use electrical energy and fuel energy.

The use of these resources is unavoidable if the plant is to operate.

C. MANMADE SYSTEMS

Population

There will be an increase in population. This is discussed in Chapter VIII of this document.

Land Use

The plant will force attention to land use planning and an implementation program. This is discussed in Chapter VIII of this document.

Traffic

There will be additional traffic as a result of the plant.

Economic

The economic impact of the plant is unavoidable. This impact is discussed in Appendix E. (See also Economic Section in appendix volume entitled "Community Impact Analysis".)

XI

XI - ALTERNATIVES

A. Purpose XI-1

B. The Siting Decision XI-2

C. Delay Construction XI-3

D. Do Not Build Plant XI-4

E. Process Alternatives XI-5

F. Plant Layout Alternatives XI-9

G. Industry Replacement XI-10

XI. ALTERNATIVES

A. PURPOSE

The purpose of this chapter is to review alternatives to the proposed action of building an aluminum reduction plant in Warrenton, Oregon.

Analysis of alternatives includes a discussion of:

The fundamental siting decision of the plant at Warrenton

Delay construction

Do not build plant

Process alternatives

Plant layout alternatives

Industry replacement

B. THE SITING DECISION

Criteria for Siting

The plant requires:

Working port available for ocean bulk carriers

Rail and highway access

Suitable and available labor market

Environmentally suitable

Domestic location - U.S.A.

Property available.

Economic power available

A coastal site, with weather protection for berthing of ocean vessels, is desirable.

Inland site is feasible, are in use; but such a site requires transhipment of alumina. This transhipment can be done, but does constitute an additional cost factor to plant operation.

A plant site must be reasonably served by railway and highway. These transportation facilities are necessary for raw material traffic to site and product traffic to market.

It is preferred to locate an industrial plant within a labor market, as opposed to a relatively uninhabited area where all labor must be imported.

An aluminum reduction plant will have emissions. An aluminum reduction plant should be sited in an area where the potential for adverse ecological effects from plant emissions is at a minimum or can be minimized by controls.

One purpose of such a plant is to enhance economic growth within the United States.

An aluminum reduction plant must be sited in an area served by economic industrial electrical energy. Primary aluminum production is governed most directly by power availability, not by availability to market, hence an isolated location can be tolerated.

Selection of Warrenton

The siting of the proposed plant in Warrenton meets these criteria: power availability, ocean access, highway and railroad service, available land, labor market, and considered environmentally suitable.

The Warrenton site was chosen in 1966; it was activated and cleared in 1968. Amax purchased the site in September 1970, with BPA power contractually tied to the site. Correspondingly, alternative siting analysis is limited to a no-plant alternative.

C. DELAY CONSTRUCTION

Construction and operation of the proposed plant can be delayed; in fact has been delayed significantly since Amax purchased the assets of Northwest Aluminum in 1970. What are real or potential advantages and disadvantages of further delay?

Advantages

1) Delay may allow for further county development of water, sewer and waste disposal facilities; such development may ease impact of plant on county services.

2) Delay could create more local demand for plant on economic grounds in absence of any replacement employer(s) and continued static economy in Clatsop County.

Disadvantages

1) Delay can price plant beyond criteria for return on investment. Costs for construction and equipment are rising. Current BPA charges cannot be paid indefinitely on a basis of a "future" plant.

2) Lack of considerable added tax assessment may cause delay in further development of county services.

3) Market forecasts recommend the proposed plant as a good investment today. The ingot capacity of this plant is required.

D. DO NOT BUILD PLANT

A major consideration in the undertaking of any industrial expansion is economic. With regard to the proposed aluminum plant, the economic impacts are threefold:

Amax

Clatsop County

U.S.A.

1) Amax's intention to build this plant reflects economic feasibility. Additional ingot capacity is required for Amax fabrication facilities and for other markets.

2) Clatsop County will be adversely affected economically because of no plant. The beneficial economics of the plant to Clatsop County will not materialize. Although considered, potential negative economic impacts have been discounted due to the extensive environmental controls planned and the assumed positive community response to land use control needs.

3) The 187,300 S. T. of aluminum produced annually at this plant will be produced somewhere--the market exists. This market will be supplied by domestic primary production or by imports to the extent available. The effect of imports is an adverse impact on the U. S. balance of payments.

4) Considerable economic and human resources have been expended in the planning and evaluation of this project. These resources would be largely wasted if this plant is not built at this site.

E. PROCESS ALTERNATIVES

Basic Process

Under today's technology there is one process for producing aluminum from alumina on a commercial basis; this is the simple electrolysis process in use throughout the world. Other technology has been tested, but no feasible substitute has been found. (The recent Alcoa development has not yet been established as a commercially tested or accepted alternative.)

There are four physical variations of this process:

Prebake anode (example: Intalco-Ferndale)

Soderberg anodes (example: Reynolds - Longview)

Physical size, i.e., capacity of individual cells.

Physical size, i.e., capacity of total plant.

Selection of Warrenton Process

The proposed plant will be a prebake plant, with cell design incorporating internal ore feed and crust breaking.

The choice of Prebake versus Soderberg is based on four criteria:

Power demand per unit of aluminum - Prebake cells can operate at 25 percent less power consumption per unit of aluminum produced as compared to Soderberg cells.

Other operating costs - Labor, maintenance, and capital cost, can be significantly less for prebake cells.

Cell efficiency - Prebake cells can operate at a better ampere efficiency.

Emission generation and control - Prebake cells generate less emissions. Prebake cell design permits superior collection of cell emissions.

Internally fed cells were selected for Warrenton over the external type on the basis of two criteria:

1) Easier to automate.

2) Emission collection is significantly better.

The proposed plant will have cells rated at 155,000 amperes. Criteria for choice is the best tested technology. In the simplest of terms the larger the cell capacity, the less costly the operation, the fewer emission sources per ton of production. There is, however, a practical limitation on cell size based on existing operating knowledge. Although larger cells are in experimental operation, the proposed cells are the largest available of commercially proven technology.

Capacity of Warrenton Plant

The proposed plant will have a rated annual production of 187,300 tons. Criteria used:

Power availability - The physical size of a primary aluminum plant must bear relation to the firm power available. Capital investment can only be ventured on the basis of established firm power to meet a high percentage of total plant demand.

Economics - The necessary service functions at a primary reduction plant--carbon plant, water treatment, cast house,--are significant in both capital and operating cost. A plant too small in capacity cannot, due to high capital cost/annual ton of product and high operating cost/annual ton of product be competitive in the market.

In summary, the physical criteria of the proposed plant satisfies the criteria for maximum utilization of power available, cleanest cell design for emission and collection, best operating efficiency and lowest product cost.

Choice of Fuel

The choice of fuel for plant operations permits the following alternatives and are judged on cost, availability, combustion efficiency, emissions and handling.

Natural Gas - Natural gas is the preferred fuel for the plant with the use of light oil or propane as a standby fuel.

Light Oil - Light oil as an alternative was less desirable on basis of handling, emissions, and availability.

Heavy Oil - Undesirable as an alternative for the same reasons as light oil, but specifically on basis of handling and emissions.

Propane, Butane, etc. - Discarded on basis of cost, except for potential as a standby fuel.

Water Supply Alternatives

The City of Warrenton will supply water from the Lewis and Clark watershed. The alternatives were the aquifer resource--Clatsop Plains, Columbia River or Youngs Bay. The criteria used are as follows:

Availability - More water available from Columbia or Youngs Bay than from Lewis and Clark. Aquifers have potential, but have been insufficiently explored.

Quality - Columbia River water would either have to come from miles upstream or treatment would be necessary. Youngs Bay water must be treated. Lewis and Clark and aquifer is good quality.

Cost - Columbia and Youngs require too much capital for gallons per day required. The Columbia River has large potential if on county basis with Amax participation as taxpayer. Possibility remote at present. Lewis and Clark already developed, can be expanded at reasonable cost.

Environmental Impact - Lewis and Clark impact limited to private land and has accepted use. Positive impact of increased capacity. Columbia River would have positive impact in conjunction with long range county planning. Youngs Bay could be utilized with a minimum of environmental impact.

Sewer Location Alternative

It would be feasible for the plant to build its own sewage treatment plant as an alternative to using the Warrenton system. However, it seems sensible to tie into Warrenton's treatment plant for sanitary sewage only. Therefore, the company can participate in the upgrading of the city plant as necessary. The reasons therefore are as much civic related than a physical necessity.

Transportation Alternative

Alumina for the plant can be transported to the plant-site from the port unloading and storage facilities by either truck or rail transport.

Criteria

1) Capital Cost

2) Operating Cost

3) Effect on traffic

4) Secondary effect on residents

5) Environmental considerations

Although the company prefers to utilize rail transport, a study on the alternative means of transporting alumina to the plant site has not been completed.

Effluent Discharge Alternative

Plant process water is normally treated to meet standards and discharged to a naturally existing water

resource. A potential alternative is to treat process water and recirculate for reuse and discharge no process water from the plant site. An additional alternate is that of no treatment with release to a natural water system. This last alternative has not been considered.

Criteria

1) Cost

2) Feasibility

3) Environmental considerations

The decision has been reached to design for "zero discharge" of process water at the proposed plant. Although costly, such a system is feasible. This decision has been based on environmental considerations.

Environmental/Process Evaluation

There are a number of process decisions in planning a reduction plant. Certainly process efficiency, cost, and production are important ones. However, the factors of reduced process emissions, efficient hooding of cells for emission capture, and internal working of cells are environmentally-oriented process changes.

The planning decision in favor of "zero discharge" of process water is similarly environmentally-oriented. The ultimate objective is to develop the best possible plant, considering mutual interfacing of engineering and the environment.

F. PLANT LAYOUT ALTERNATIVES

The actual siting of the buildings and facilities at the plant site present many alternatives. The criteria include topography, soil conditions, BPA requirements, noise, access needs, necessary relationship between plant functions, and general aesthetics.

Alternate plant layouts have been developed. The major process buildings, (potlines, bake ovens) have been final sited. These buildings include the major emission

sources. The alternates remaining include final siting of shops, warehouse, metal service, other service buildings, and administrative and other office buildings. The siting procedure is presented in the consultant's appendix volume entitled "Master Development Plan."

G. INDUSTRY REPLACEMENT

New plant capacities are needed not only to supply market demands but to replace old plants as they become obsolete because of technical, economic and environmental reasons.

Use of Resources

Due to technological advances, new plants consume fewer resources per unit of aluminum produced than do old plants. These resources include manpower, water, electrical energy, fuel energy, industrial zoned land acreage, and commodities consumed in replacement items (i.e., steel, coke, refractories).

Environment

The design of new plants can more readily accommodate the environmental controls necessary to comply with appropriate environmental standards. Regardless of technology available and capital expenditures made, old plants will find it difficult to achieve the level of environmental safeguards possible with a modern installation such as the proposed Amax plant.

The Alternative

By default, failure to satisfy the domestic need for replacement plants, as well as new plant capacity, promotes the alternative of continuing the operation of "old" aluminum reduction facilities beyond the time of their practical obsolescence.

This failure to satisfy the domestic need for replacement will continue to place in jeopardy the U. S. competitive position in world markets.

XII

XII. SHORT TERM/LONG TERM PRODUCTIVITY

A. Definitions XII-1

B. Short-Term Implications XII-1

C. Long-Term Productivity XII-2

XII. SHORT TERM/LONG TERM PRODUCTIVITY

A. DEFINITIONS

A necessary assessment in an environmental review is the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity of the environment. Put another way, is the short-term productivity of a project (for the project's life) going to alter or damage the long-term productivity of the area (after the project's life). The purpose of this chapter is to analyze the short-term impacts of the proposed plant, both favorable and unfavorable and attempt to project what bearing these impacts might have on the area after the plant operation is terminated.

B. SHORT-TERM IMPLICATIONS

Productivity Factors

The entire purpose of the facility is to create short-term productivity factors in addition to returning a satisfactory profit to the owners. The impacts covered in this statement can for the most part contribute to short-term productivity. Most of those that do not can be controlled. The unavoidable effects, which is the substance of what is left, are the factors that deserve the most attention since these are not necessarily advantageous or controllable.

The plant will create short-term changes. There will be more people, higher living standards for both current and new residents, economic growth, better schools and improved community facilities. Short-term abuses such as overdevelopment, poor zoning, school imbalance can and should be controlled.

Unavoidable Effects

The proposed reduction plant will create some unavoidable short-term effects. These were discussed in Chapter X.

It is safe to assume that effects involving air quality, meteorology, and direct use of energy, will cease once the plant stops operating. However, such items as population growth (and secondary use of energy), land use precedents, traffic loads, and economic factors may continue into the future.

C. LONG-TERM PRODUCTIVITY

After the life of the plant is over, say in 50 years, it seems likely that the plant site area could be rehabilitated and put back into another productive land use.

The long-term effect on the environment as a result of the short-term emissions is a matter of consideration. Research information does not suggest long-term effects. Monitoring and continuing studies are for the purpose of identifying any possible changes or trends and for the implementation of necessary controls as indicated.

Service facilities, upgraded highways, schools, housing, will carry over into the long-term. These result from the short-term productivity stimulated by the plant.

Summarized, the long-term productivity of the area should not be adversely affected by the short-term effects of the plant.

XIII

XIII. IRREVERSIBLE COMMITMENTS

The short-term or life of the plant, has been analyzed in terms of effect. During the post-plant period, rehabilitation will probably erase most indications that a plant existed.

There are some features of the operation that are irreversible. These deal primarily with the use of resources rather than environmental conditions.

- Bauxite ore will be mined and refined in Australia. Much of the end product, aluminum, will be recycled, but some will be lost from the economic cycle. Such material is never lost irretrievably since the planet is a closed system. However, easily won ores will be depleted.

- Power will be utilized, as well as other utilities, and these will not be replaced. A mitigating factor is that the power is primarily hydroelectric and thus the hydrologic cycle factor regenerates the energy base.

Other irreversible commitments that involve precedents or concepts should also be mentioned.

- Land area use is not irreversible, but unless concepts of ownership and initial use change drastically, a poor land use program or committed poor development can have long-lasting effects.

- The commitment of capital resources and labor into the project is irreversible. Once the decision is made to build, the commitment cannot be routed to an alternate use.

XIV

XIV. CONSULTATION AND CITIZEN PARTICIPATION

A. Summary XIV-1

B. Public Sector Participants XIV-3

C. Private Sector Participants XIV-4

D. Governmental Sector Participants XIV-6

XIV. CONSULTATION AND CITIZEN PARTICIPATION

A. SUMMARY

Concurrent with earlier investigations into the feasibility of an aluminum plant at Warrenton, in 1970, a Citizens Advisory Group was formed. This group, comprising a cross section of citizens in the area, was to discuss problems, recommend alternatives and otherwise guide Amax in planning the proposed plant as it related to effects on the community.

The Citizens Advisory Group has sponsored several informational meetings with local and county government officials, their staffs, and private citizens. These meetings, attended by Amax representatives, informed this group of the project status and plans, and responded to questions.

A newspaper supplement, discussing the planned project and the probable impacts on the area was published in mid-August 1973. The supplement drawing upon the content of this document, addressed itself to issues raised by public comment and criticism. Communication channels have been established to accept and respond to public input.

Subsequent to circulation of the supplement, a series of public meetings were held with citizen groups throughout the county. The open discussion of Amax planning at these meetings, provided additional public input to the planning process.

Public response has indicated the following major concerns for potential negative impacts.

1) Pollution - Can the aluminum plant meet the State of Oregon environmental standards? Will any fluoride fallout from the plant deleteriously affect the estuary?

2) Power - The Aluminum plant uses too much power in relation to jobs provided.

3) Local Government - Can local government provide necessary services, utilities, etc. for increased population?

4) Changing Conditions - Uncontrolled or unplanned change is undesirable. Rapid change is undesirable.

Public response has expressed several positive reactions.

1) Employment - Will provide jobs so young people do not have to leave the community.

2) Local Economy - Would tend to stabilize the economy by being one of the few year-around major employers. Improve the general standard of living in the area.

3) Local Government - Will provide the resources for capital improvements to local schools, sewage, water systems, etc.

4) Changing Conditions - Will provide the base and impetus for long-needed changes in the community.

Public response to the Amax plant has had significant impact on the planning for this facility. A list of planning decisions influenced or corroborated by public input includes:

1) Zero discharge of plant process water.

2) Proposed modifications to the Warrenton water system.

3) More extensive meteorological study and dispersion model analysis of plant emissions.

4) Changes in plant layout and control systems.

5) Proposed employee training plant at Clatsop Community College.

6) Consultation with professional landscape planners.

7) Estuary study.

8) Use of secondary scrubbers.

9) Hiring of additional professional consultants to update existing information and to provide independent assessment of impacts within the county.

The "open" planning for the Amax project will continue.

In the private sector Amax has engaged professional consultants for assistance in evaluating potential problems arising from the proposed plant.

B. PUBLIC SECTOR PARTICIPANTS

The following list of the Citizens Advisory Group is provided as their association:

Gene Itzen, Work Placement Director, Clatsop Community College, Astoria; Chairman Citizens Advisory Committee

Russ Bristow, Columbia River Fisherman Protective Union, Retired, Knappa

Richard Knotts, Superintendent Intermediate Education District, Astoria

Mrs. Robert J. Fox, Hammond Garden Club, Hammond

Mel Hartell, Livestock and Dairy Association, Astoria

Robert Gohl, Jr., Barber, Warrenton

Peter Paulson, Clatsop County Planner, Astoria

Al Otness, Agent OSU Extension Service, Astoria

Mrs. Curtis Stricklin, Clatsop County Planning Commission, Warrenton

C. PRIVATE SECTOR PARTICIPANTS

To date Amax has utilized assistance and recommendations from the following consultant organizations:

Thorne Ecological Institute - Dr. F. Glover - to coordinate a research study of the bio-physical components of the Clatsop County environment, including potential negative impacts and recommendations to mitigate such impacts.

Rocky Mountain Center on Environment - Roger Hansen - to instruct and assist Amax personnel in evaluating possible consequences of proposed aluminum plant.

H. E. Cramer & Company - Dr. H. E. Cramer - to prepare meteorological analysis of plant site and vicinity; to prepare dispersion models of plant emissions for purpose of plant design and evaluation.

Dr. O. C. Compton, OSU - to prepare inventory of vegetation in Clatsop County; to implement program of vegetation and soil testing in the County; to serve as consultant concerning fluoride levels and their effect with respect to soils and vegetation.

Bull, Field, Volkmann - Stockwell, Architects & Planners - Mr. Stockwell - to conduct study and make recommendations concerning plant layout, architecture and landscaping at plant site.

Dames & Moore - Soil Engineers - soil studies at plant site for building siting and soil protection.

Swan & Wooster - feasibility studies concerning proposed port facility.

CH_2M Hill - providing studies concerning land use in Clatsop County.

CH_2M Hill - studying bio-physical components of the Clatsop County environment.

Carl Green & Associates - Mr. C. E. Green - feasibility study and recommendations concerning increased water storage within the City of Warrenton water system.

Intalco Aluminum Corporation - performing studies and data relative to aluminum plant emissions; plant noise emissions.

Kaiser Aluminum & Chemical - providing performance data on technological systems and recommendations to Kaiser Engineers.

Kaiser Engineering - providing the basic engineering for the proposed plant.

Denny-Wagoner-Wright - coordinating public information and input program.

Dr. Howard R. Alden, Colorado State University - to instruct Amax personnel in evaluating procedures.

Dr. Donald F. Adams, Washington State University - to survey vegetation in Clatsop County and to make recommendations to Amax for off-site monitoring.

Bolt, Baranek and Newman - to conduct pre-plant existing noise surveys at both the plant site and the Port of Astoria: to assist in the application of noise control technology in plant design.

Nortec - consultation relating to Clatsop County landfill.

Calgon Corporation - to develop information and suggestions relating to the plant process water control system.

S F Air Control, Inc. - to conduct emission sampling studies at the Bluff reduction plant, New Zealand.

Shannon & Wilson - to perform soil surveys and make soil borings of the site area as a follow-up to the previous Dames and Moore studies.

Mr. Phil Schneider, National Wildlife Federation - to obtain general wildlife information on the Warrenton area.

Mr. Larry Williams, Oregon Environmental Council - to discuss general citizen participation in the project.

Mr. John D. Findley, Bureau Sport Fisheries and Wildlife - to discuss project environmental orientation.

Mr. Richard Ayres, Washington, D.C. - to solicit comments on the permit application and to discuss general project environmental considerations.

Dr. C. C. Gordon, University of Montana - to review estuary study proposal and to provide information on fluoride toxicity.

Dr. William Harris - to survey beef and dairy production herds in the plant-site area and make recommendation relative to off-site monitoring.

Bull, Field, Volkmann, Stockwell, Architechts & Planners - Mr. Stockwell - to supplement the Amax environmental assessment with a study of the community impact of the proposed plant. Mr. Stockwell enlisted other consultants to assist with this assignment:

DeLeuw Cather & Co.
Lord & Associates
Sedway/Cooke

Dr. L. Slotta, OSU - to study the physical, chemical, and biological attributes of Youngs Bay.

Consultants were asked to evaluate the effects of plant emissions on vegetation and animals in the area. These consultants were previously listed in Chapter X - UNAVOIDABLE EFFECTS.

D. GOVERNMENTAL SECTOR PARTICIPANTS

The preparation of this document has included a coordinated gathering and interpretation of data with local county and state officials. Included is a representative listing of local public representatives consulted.

County Commissioners
County Planning Office
County Assessor
City Planning Commissioners - Astoria
City Manager - Astoria
City Attorney - Astoria
City Attorney - Warrenton
City Manager - Warrenton
City Mayor - Warrenton
District Fire Marshall
Chief of Police - Astoria
Astoria School Superintendent
Superintendent of Intermediate Education
Warrenton School Superintendent
County Welfare Department
State Employment Office - Astoria

Additionally, State agencies such as the Highway Department, Department of Environmental Quality, Department of Human Resources, etc. have also been consulted in the planning process.

Federal agencies, particularly those relating to the Department of Interior, BPA and Environmental Protection Agency have also provided inputs into the planning program for the plant.

.1979 Bend S.C.L.-Murphy 8050
.Rd. Sec. The Dalles-Cal.
.(Gr, pave, sign, & sig.) #2

C+A 6769 12-4-78
C+A 6904 1-25-79

C+A 7044 4-5-79

2750

PROJECT PROSPECTUS
PART 4 — SURVEY AUTHORITY

4 C

SEE INSTRUCTIONS ON REVERSE

KEY ID#

SECTION Bend SCL-Murphy Road
~~The Dalles-California Highway~~ #4

REGION 4

SURVEY AUTHORITY

AUTHORIZATION NO. 1 | PREFIX 9-1-122 | DATE 5/9/83

ITEM	ESTIMATED COST	CURRENT AUTHORIZATION	ITEM	ESTIMATED COST	CURRENT AUTHORIZATION	ITEM	ESTIMATED COST	CURRENT AUTHORIZATION
901 PROJECT MANAGER	$	$ 1,000	915 AUDITS	$	$	933 SURFACE DESIGN	$	$ 1,500
902 CITIZEN'S INVOLVEMENT			916 PHOTO-GRAMMETRY			934 GEOLOGY		
903 LOCAL GOVERNMENT			918 LOCATION			935 SOILS		
904 CONSULTANT			919 ENGINEERING GRAPHICS			936 REGION TRAFFIC		
905 FINAL DESIGN		1,500	920 PROGRAM MANAGEMENT		200	937 HYDRAULICS		
906 BRIDGE DESIGN		200	921 SPECIFICATIONS		3,000	938 REGION ENVIRONMENT		
907 PRELIMINARY DESIGN			922 ADMIN. SERVICES		100	949 URBAN STUDIES		
909 RIGHT-OF-WAY DESCRIPTION			923 ENVIRONMENTAL SECTION		200	950 TRAINING		
910 REGION GEOLOGIST		500	924 D.O.T.			955 R/W RELOC. ASSISTANCE		
911 TRAFFIC SECTION		200	925 AIR MONITORING			960 PERSONAL LEAVE		
912 LANDSCAPE			926 FOUNDATION			980 PUBLIC HEARING		
913 RIGHT-OF-WAY LIAISON			927 FREE BRIDGE DESIGN					
914 REGION UTILITY LIAISON			932 RAILROAD & UTILITIES		200			

	TOTALS	$ 8,600 / $ 8,600
RIGHT-OF-WAY PREFIX	PREVIOUS AUTHORIZATION	$
FEDERAL AID PROJECT NUMBER	ADD. AUTH. REQUIRED	$

LOCATION ENGINEER'S REMARKS

Prepare plans, specifications and estimate for a protective overlay by contract.

1 Venterg ✓
Anderson
2 Adams ✓
Macnab
3 Stoudenmayer
Terpin
4 Trout
Wakerlig

RECEIVED
MAY 16 1983
ROAD DESIGN SECTION

cy Watson mc

Do Not File
Return to
Bring Up
Action

PREPARED BY: Phillip V. Lewellyn	DATE: 5/9/83	APPROVED, ASST. HIGHWAY ENGINEER FOR OPERATIONS: X [signature]	DATE: 5/9/83
RECOMMENDED, REGION ENGINEER: X	DATE:	APPROVED, ASST. HIGHWAY ENGINEER FOR TECH. SERVICES: X [signature]	DATE: 5-10-83
RECOMMENDED, LOCATION ENGINEER: X [signature]	DATE: 5/9/83	FEDERAL HIGHWAY ADMINISTRATION APPROVAL DATE	

734-1914 (7-82)

nig cc:OSHD(D[illegible]ter)

U. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL ACCEPTANCE REPORT

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	3	Deschutes	Oregon
DATE OF REPORT	**REPORT MADE BY**		**PROJECT NO.**
1-25-83	David B. Carter, Area Engineer		F-4-2(6)
COMPLETION DATE	**ACCEPTANCE DATE BY CONTRACT AGENCY**	**TIME ELAPSED**	**CONTRACT TIME**
2-24-81	9-28-81	See below *	See below
APPROVED EXTENSIONS	**LOCATION**		
See below	Beginning at south city limits of Bend and extending approximately 2.05 miles southerly on US 97, Deschutes County, Oregon		

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

RECEIVED
STATE HWY ENGR
FEB 2 '83
REFER TO
Krasey
FOR

Info	Items	R/D	D/R	Sign	Act	File

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

cg 2/3

NOTED
W. E. SCHWARTZ

BEND SOUTH CITY LIMITS - MURPHY ROAD SECTION
THE DALLES - CALIFORNIA HIGHWAY
Grade, Pave, Sign & Signals

This project provided for the widening of the above section of The Dalles - California Highway. Several traffic signals were also included in the work.

The project was set up with separate time limits on Units A and B. Unit A, which included all work required to complete the project between its beginning and Station 115+00 except the asphalt wearing course, had a contract time of 200 calendar days. Unit B specified that all work to be done under the contract shall be completed before the elapse of 440 calendar days. The table below presents the time actually used on the project.

Unit	Contract Time	Extension	Time Used	Time Overrun
A	200 CD	- 0 -	288 CD	88 CD
B	440 CD	58 CD (8-23-82) 9 CD (12-18-81)	536 CD	29 CD

Liquidated Damages

Unit A $100/day @ 88 CD = $ 8,800
Unit B $200/day @ 29 CD = 5,800
Total $ 14,600

*NOTE: Not applicable for direct federal projects.

(continued)

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE: Original Signed by D. B. Carter David B. Carter		SIGNATURE: Original Signed By G. K. HOSSNER Field Operations Glenn K. Hossner	
TITLE: Area Engineer	DATE: 1-25-83	TITLE: Field Operations Engineer	DATE: 2/2/83

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

AGREEMENT

IN CONSIDERATION OF THE MUTUAL PROMISES CONTAINED HEREIN, R. L. Coats Construction Co., hereby agrees to:

(1) Release the State of Oregon, by and through its Transportation Commission and its Department of Transportation, from any and all claims arising out of the awarding and performance of Contract No. 8950 which is referred to as the Bend SCL-Murphy Road project.

(2) Indemnify and hold harmless the Oregon State Transportation Commission and the Oregon Department of Transportation from any and all claims arising out of the performance of the above referenced contract including, but not limited to any claims by subcontractors, suppliers, consultants, employes, architects and engineers.

IN CONSIDERATION OF THE MUTUAL PROMISES CONTAINED HEREIN, the Oregon State Transportation Commission by and through its Department of Transportation agrees to waive any claim for phase "b" liquidated damages against R. L. Coats Construction Co. arising out of the above referenced contract during the period of November 24, 1980 and January 25, 1981. Liquidated damages for the period January 26 through February 24, 1981 remain in full effect.

This agreement is not and cannot be utilized by the parties to this agreement or by any other party or person as an admission of liability.

RECEIVED
STATE HWY ENGR
AUG 20 '82
REFER TO
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Info | Invest | R/D | D/R | Sign | Act | File

R. L. COATS CONSTRUCTION CO.

By R. L. Coats

OREGON STATE HIGHWAY COMMISSION AND DEPARTMENT OF TRANSPORTATION

By Norman E. Schwartz

A net total of $14,600 of liquidated damages was assessed to the contractor as a result of the overrun of the time used to complete the work.

The final cost of the original contract items was $1,459,416.73, which is a 2.2 percent underrun of the contract amount of $1,492,594.50. The final cost of the project, including all changes and engineering, was $1,839,868.35.

A final inspection of the completed work was made on December 16, 1980. Some minor traffic signal work remained at that time. This work has since been completed.

All participating work has been completed.

All signing and striping is complete.

--- DBC ---

VICTOR ATIYEH
GOVERNOR

Department of Transportation
STATE HIGHWAY DIVISION

IN REPLY REFER TO
FILE NO

August 23, 1982

CON S #0080

R. L. Coats
63386 Skyline Ranch Rd.
Bend, OR 97701

RE: Contract Time Agreement
Bend SEL - Murphy Rd.
Contract No. 6980
FAP # F-4-2(6)

Gentlemen:

Enclosed for your records is a fully executed copy of the Release and Indemnification Agreement concerning contract time charges and liquidated damages on the above contract.

As stated in Mr. Schwartz' letter of June 25, 1982, there remains XX calendar days of liquidated damages charged to phase "B" of this contract at $XXX.00 per day for a total liquidated damage of $X,XXX.XX.

Sincerely,

D. B. Hammond
D. B. Hammond, P.E., P.L.S.
Contract Administration Engineer

DBH:mb

bc: W. E. Schwartz w/att.
Dale Allen w/att.
M. M. Robertson w/att.
Finch w/att.
Bob Church - Please release liquidated damages as stated above.

NOTED
W. E. SCHWARTZ

RECEIVED
STATE HWY ENGR
AUG 24 '82
REFER TO
FOR

Info	Invest	R/D	D/R	Sign	Act	File

Form 734-3128

813D

VICTOR ATIYEH

Department of Transportation
STATE HIGHWAY DIVISION

IN REPLY REFER TO
FILE NO.:

June 25, 1982

R. L. Coats
P. O. Box 1008
Bend, Oregon 97701

Contract Time
Bend SCL-Murphy Road Sect.
Contract No. 8950
FAP No. F-4-2(6)

Enclosed is a letter received from the attorney of your electrical subcontractor's vendor supplier regarding completion of the traffic signal work on the above project. We will direct our response to you.

First, we do not concur with some of the statements contained in the attorney's letter. No one in the Highway Division told or instructed you, Hamilton Electric, or their supplier, Signal Systems, or their vendor of software, KEI, to upgrade the fire preemption system on this project. We do believe, however, that KEI became confused and assumed we wanted a change. We find no evidence that the State contributed to this mistaken assumption. KEI apparently did not communicate with anyone what they were doing from September 1980 until January 1981. On January 15, 1981, Signal and Control Systems, Inc. wrote to Hamilton Electric requesting advice and stating why the corrective work was taking so long. This letter was submitted to the State and on January 26, 1981, Region Construction Engineer Robert Pool wrote to you instructing that we had not requested a change in the preemption system and requesting that the work be completed as soon as possible. Further, on January 22, 1981, our Traffic Engineer, Mr. L. E. George, contacted both Signals and Control Systems, Inc., and KEI by telephone and advised them that we did not want to change the system on this project and that they should complete the system as contracted.

In an effort to resolve this matter, and in acknowledgment of KEI's misunderstanding, a Release and Indemnification Agreement is enclosed for your consideration. The Agreement agrees that the State will waive all liquidated damages for phase "b" completion except for the period January 25 through February 24, 1981, the time required for completion of the contract work after KEI and Signals and Control Systems, Inc. were told explicitly that we did not want a change and had not asked for one.

Upon return receipt of a copy of the enclosed Agreement signed by your firm, we will release all liquidated damages except for 29 calendar days for phase "b" completion at $200.00 per day, or $5,800.00.

W. E. Schwartz, P.E.
Assistant State Highway Engineer
for Operations

Enc.

OBJ:mk st

bc C. T. Keasey
H. S. Coulter
Dale Allen w/att.
FHWA w/att.
W. W. Rovertson w/att.
R. D. Church - Don't release L.D. until Agreement is signed.

Law Offices
SALTER, McKEEHEN, GUDGER & RABINE
a professional corporation
59 East 11th Avenue, Suite A
Eugene, Oregon 97401

Charles M. Gudger III
Monte C. McKeehen
Robert A. Rabine*
James R. B. Salter*
Carleton H.A. Taber**
Kevin Patrick Dolan*
Lewis Lynn Ellsworth**
J. B. Ransom*
Robert Owen Middleton*

*Member Washington Bar only
**Member Washington and California Bars
All others Oregon Bar only

Eugene Office:
Telex 152556 SEATAC
Telephone (503) 686-2244

Seattle Office:
3300 Westin Building
Seattle, Washington 98121
(206) 624-3216

Please reply to Eugene office

June 8, 1982
Certified Mail

Mr. Bryan Jackman
Department of Transportation
Highway Division
Transportation Building
Salem, OR 97310

CE
CAE
FOE
OCS
SCS
EEO

RECEIVED
JUN 10 1982
CONSTRUCTION SECTION

OM
CA
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Re: Bend South City Limits - Murphy Road Section - Contract No. 8950
Issue for consideration; extension of job time, Unit B

Dear Mr. Jackman:

The purpose of this letter is to once again ask for an extension of the amount of time allowed for the completion of the Bend South City Limits - Murphy Road, job contract No. 8950, or, in the alternative, a reduction in the liquidated damages assessed against that job which have been passed on to Signals & Control Systems, Inc.

Our request has been denied by Robert C. Pool, Region Construction Engineer. I enclose a copy of his letter for your review. Also enclosed is a copy of other pertinent correspondence throughout this particular job which I feel has a bearing upon your review of this matter. I believe a review of the basic facts of this matter is in order.

The job was originally allowed 440 calendar days. The job was let on June 13, 1979 and therefore 440 days would have brought us up to September 15, 1980. Turn-on of the intersections involved was on September 10, 1980, five days before the final deadline.

Each of the intersections involved was to have had the "fire pre-emption" device which had previously been ordered by the City of Bend. The fire pre-emption soft ware programing was done by Kubel Enterprises, Inc. of Sacramento, California. This soft-ware programing was the same for the intersections in Bend, Beaverton, and other jobs throughout the State of Oregon.

The controllers were shipped from Signals & Control Systems, Inc. on March 10, 1980 and were accepted by the State of Oregon, Department of Transportation, Testing Laboratories on March 21, 1980. In a telephone conversation between myself and Peter Hansen, Chief of the Bend Fire Department, I was advised that the fire pre-emption equipment would have been the subject of testing by the State of Oregon testing laboratory. In other words the entire package, including the conflict monitors, etc., and the fire pre-emption were all the subject of the testing process.

In any event, on September 10, 1980 when the signals were turned on a malfunction in the fire pre-emption device was first noticed. An on the spot determination was made that it was apparently a software programing "glitch" that was causing the problem. The nature of the glitch was such that it would not occur unless a very peculiar set of circumstances occurred simultaneously. These circumstances were such that the State testing lab apparently could not produce them with the result that the glitch was not determined during the State testing procedures. Kubel Enterprises, Inc. was notified of the software programing problem on September 10, 1980. Realizing that this software programing was a problem which affected not only the Bend intersections, but also other intersections throughout the State of Oregon (and indeed throughout other states in the United States), Kubel Enterprises began to diligently pursue corrective action on all these programs. This corrective action included the use of experts in the diagnosis of the problem, the redrafting of a new software program for the fire pre-emption function, submitting this new program to manufacturers of the particular micro processor involved and then, in mid-October, 1980 submitting it to the State of Oregon for testing and installation in two isolated intersections within the State of Oregon. It is important to note that this particular software programing was in many other intersections throughout the State of Oregon which had been installed and accepted prior to the September 10, 1980 turn-on date in Bend. Kubel Enterprises had not received any complaints from any other intersection in which this software programing was present. The reason for this, as was indicated above, was that it took a sophisticated set of circumstances, occurring simultaneously, to trigger the problem. Those sets of circumstances quite simply hadn't occurred in the other intersections in which this programing had been implemented. Therefore, September 10, 1980 was the first time that this problem came to the attention of Kubel Enterprises.

The Department of Transportation suspended the time during which

liquidated damages would accrue because of the fire pre-emption problem between September 15, 1980 and November 24, 1980. The suspending of the time was to allow repair of the fire pre-emption system. This suspension of the time is evidenced in a letter from W. W. Robertson to R. L. Coats Construction Co. dated November 24, 1980. A copy of this letter is enclosed for your review.

It is critical to understand that between September, 1980 and November, 1980 Kubel Enterprises, Inc. was diligently pursuing corrective action on the defective program. Kubel Enterprises did this under the realization that it extends a warranty (customary in the industry) on the product it supplies and commenced to make repairs under its warranty obligation.

Liquidated damages time was again started on November 24, 1980. This was done without notice of the State's intent to re-begin liquidated damages time. The only notice provided was the fact that the State once again had begun the liquidated damages daily amount effective November 24, 1980, the same day that the letter so notifying was written.

On May 7, 1981 the various individuals involved in this particular matter held a meeting in the City of Bend. The subject of this particular meeting was the Unit A liquidated damages claim (since waived by Signals & Control and therefore is not an issue) and the liquidated damages of Unit B. During that meeting Mr. Kubel, who was present, advised the various principals involved as to the diligent efforts which his office made in order to correct the software programing problem. During that meeting one of the individuals representing the State of Oregon advised that the reason the liquidated damages were once again started was in order to "coerce activity" on the repairs of the software programing function. Needless to say, the reinstating of the calendar work day count on November 24, 1980 was not necessary to "coerce" any activity on the part of Kubel Enterprises, Inc. The truth of the matter is that Kubel Enterprises was working as hard as it could and as effectively as it could in the correction of the programing problem. The only mistake that Kubel Enterprises made was the failure to keep the traffic engineering department fully advised as to the efforts it was making in the reprograming of the fire pre-emption software function. It is my personal belief that had Kubel Enterprises done that then the liquidated damages would not have been reinstated when they were.

It seems highly inequitable to "punish" Kubel Enterprises, Inc.

and Signals & Control Systems, Inc. to the sum of $19,000.00 for their failure to keep the State Highway Division informed as to their progress. This is not to say that it wouldn't have been a good business practice to keep communications going. All I am saying is that given the fact that Mr. Kubel was vigorously pursuing corrective action, and since the State of Oregon saw fit in the first instance to allow additional time in which to make the repairs during which liquidated damages would not be assessed, it now seems unequitable to reinstate the liquidated damages (without notice) for the purpose of coercing remedial action -- action that was already taking place.

I would now like to speak to the letter of April 9, 1982 written by Robert C. Pool and directed to R. L. Coats Construction in which Mr. Pool denies the request for reduction in liquidated damages.

In response to paragraph 1, it is my position that the standard specifications for highway construction code clearly anticipates warranty work to be performed by the contractor or his subcontractors and that this warranty work would not serve to extend the time period during which liquidated damages will be charged. Let me point out again that the components passed the State testing laboratory procedures. Section 661.48 of the Standard Specifications, at page 562 states as follows:

> **"After satisfactory completion of the test, the contractor will be notified to pickup the tested and marked equipment at the test site. Successful completion of the test does not relieve the contractor of equipment warranty obligations."**
> (Emphasis Added)

The Code clearly contemplates that warranty work will be performed by the contractor or his subcontractors. It does not seem reasonable to conclude that liquidated damages will continue to accrue in spite of the fact that warranty work is being performed. Mr. Pool indicates that final acceptance of the work is not made until a signal system is complete and operating as required in the contract. These inspections, however, can be withheld if any work in "whole or in part" is found to be unsatisfactory. (105.1A) This could mean that final inspection could be withheld pending any particular problem. These problems may have, in theory, nothing to do with electrical equipment, etc. For instance, I could foresee a situation where final inspection would be withheld pending repair of defective paint on

the controller cabinet, repair of defective paving, repair of striping work, additional cleanup work, or other items which had been noted by the inspector to the contractor to finish before final acceptance would occur. Imagine then that a week before final acceptance occurs an electrical problem develops in a controller which had been working for a considerable period of time. It apparently is Mr. Pool's position that the manufacturer of the controller equipment would have to come back in and make repairs, not under warranty, but under the original dictates of the job, and if these repairs should take longer than the amount of time required by the contractor to do the final striping, painting or cleanup then final acceptance would again be held up pending repairs of that electrical problem. If this is the program to be followed, then certainly the phrase "warranty" has an extremely limited scope and role within the setting of contracts let by the State Highway Division. I do not believe that this restrictive interpretation of the words "warranty" is reasonable given the length of time that contracts of these sorts often involve.

I would note that on the data card which monitors the progress of this particular contract the notations indicate that the job was substantially complete on September 13, 1980. This date was then marked out with a revised substantially completion date of February 24, 1981. The completion date is indicated to be April 14, 1981. Liquidated damages, however, were stopped as to R. L. Coats on February 24, 1981. The card which I have and which was sent to me on September 2, 1981 does not indicate a date of acceptance. It would appear that the tolling of the daily liquidated damages count is somewhat flexible in the determination and judgment of the regional engineer's office.

Therefore, if the intent behind the reactivation of the daily count was to coerce corrective action on the part of Kubel Enterprises (through R. L. Coats Construction) then the reinstitution of the liquidated damages was not necessary for the reasons stated above. Nothing further was gained by the State except the financial punishment of Kubel Enterprises who was attempting, as best it could, to repair under a warranty provision the software programing difficulty.

As to paragraph 2 of Mr. Pool's letter, Mr. Kubel advises that Bob Judson, Bud George, Bill Zirbes and John Erwin of the signals' shop and traffic engineering section particularly approved of the proposed repair schedule. Whether these individuals were in the chain of authority or not, the fact of

the matter is was that there were several different intersection areas that had to be fitted with the newly programed and tested software fire pre-emption unit. It was basically thought that since the northern part of the State of Oregon had more of these particular intersections and involved busier areas they should be the beneficiary of the initial repair effort. To the extent that the liquidated damages continued to accrue during the period of the initial installation in the northern part of the state and the final installation in Bend, my clients would seem to be being punished financially. The jobs in the northern part of the state were already completed and liquidated damages were not accruing on them to the best of my knowledge. I suppose my clients could have gone into Bend and done that first, but that would not have been in the best interests of the State of Oregon Department of Transportation who felt that the northern area deserved the first attention.

As to paragraph 3 of Mr. Pool's letter, the State did issue an upgrade change order as to pedestrian clearance in the pre-empt sequence for the City of Tigard. It was Mr. Kubel's understanding that the same change would be desired in Bend and therefore the programing was also developed for the Bend area. Apparently Bend did not request that change order after all. The programing has been created however and can be provided for that particular job should the City of Bend so desire it.

As to paragraph 4, Mr. Pool indicates that "we cannot stop liquidated damages because someone is 'working' on a repair". This is simply not the case. I draw your attention to the letter from Mr. Robertson's office dated May 24, 1980 and sent to R. L. Coats Construction Co. It seems clear from that letter that Mr. Robertson's office did stop the running of liquidated damages for an anticipated "reasonable period of time" so as to enable Mr. Coats to effectuate repairs of the fire pre-emption system. Since the Department does have the authority to toll the running of liquidated damages and of course has the authority, apparently, to reinstate the calendar work day count without any anticipatory notice it seems clear that the basis set forth in paragraph 4 of Mr. Pool's letter is simply not sufficient grounds to deny my client's request for the elimination of the liquidated damages assessed on this job.

As to paragraph 5 of Mr. Pool's letter, I talked with Chief Hansen and he advised that the purpose of the fire pre-emption system was to clear out traffic on the route which is going to be used by responding units. This is accomplished by advancing in a

more rapid fashion the light sequence so as to turn the signals green in the direction of the traffic along the route which the units are going to follow. In this fashion traffic does not back up at each light, but rather continues to move smoothly through the intersections and then over to the side of the road in order to let the responding units pass by. Chief Hansen indicated that at no time were there any traffic accidents at any of the intersections during the appropriate period of time in question as a result of the fire pre-emption not working. It is important to note that in all other respects the traffic signals functioned as required. To be certain, the failure of the system to function in the fire pre-emption mode must have been a source of irritation to the fire department and city officials who had ordered the fire pre-emption in the beginning. As of the date I conferred with Chief Hansen, no one from the State and unfortunately no one from my client's company nor Kubel Enterprises had advised Chief Hansen as to the reason why it took so long for the fire pre-emption software programing unit to be repaired. It is therefore a question of degree in determining just how much inconvenience was sustained by the public at large in the City of Bend. I note that the City of Bend did not use the opticom pre-emption device signals for many years and got by during that period of time. Obviously, the fire pre-emption mode enhances the ability of units to respond and yet there is no evidence that lack of the fire pre-emption mode resulted in any quantifiable damages to the citizens of Bend.

My whole point, therefore, is that the equipment passed its test originally, and when the difficulties were discovered a diligent effort was made to repair, under warranty, the software programing problem. As soon as the repairs were effectuated installation of the repairs throughout the State of Oregon was commenced. Since the traffic signals themselves worked without the fire pre-emption mode, and since the liquidated damages were stayed between September 12 and November 24, 1980, and since they were restarted without notice on November 24, 1980, it seems like there is authority for the granting of our request for waiver of those liquidated damages. I feel it is under these circumstances an abuse of the intent of the statutory provisions allowing for liquidated damages to continue to impose those liquidated damages upon R. L. Construction who has, of course, passed these on down the line to my client, Signals & Control Systems and who in turn has passed them down to Kubel Enterprises, Inc. Regardless who is ultimately bearing the cost of this liquidated damages assessment, I would ask you in the spirit of fairness and equity to reconsider the State's position and to allow the State to remit

until R. L. Coats Construction (for disbursement to my client and Kubel Enterprises) the sums which have been previously withheld as liquidated damages.

Thank you for your attention and courtesy in this matter.

Very truly yours,

SALTER, McKEEHEN, GUDGER & RABINE

Monte C. McKeehen

MCM:db
Enclosures
cc: Kubel Enterprises, Inc.
Signals & Control Systems, Inc.

January 14, 1982

Mr. Monte C. McKeehen
Attorney at Law
59 East 11th Avenue, Suite A
Eugene, OR 97401

COM 5
#8950

Dear Mr. McKeehen:

This will acknowledge your letter of January 11, 1982, addressed to the Secretary of State with a copy to the Department of Transportation with attached Release of Claim from Signals and Communications Systems, Inc. The Release states that the claim filed against R. L. Coats in the amount of $16,402.71 is withdrawn.

This appears to be in connection with a claim filed in [illegible] against R. L. Coats on Contract No. 8950 for [illegible] on the Bend S.C.L.-Murphy Road Section of The Dalles-California Highway in Deschutes County.

This information will be noted in our records and we will advise the surety and the contractor.

Sincerely,

Robert W. Cowgan
COMMISSION SERVICES

RWC:dre

cc: Safeco Insurance Company of America
[illegible] S.W. Kruse Way
Lake Oswego, OR 97034

R. L. Coats
[illegible] Skyline Ranch Road
Bend, OR 97701

NOTED ON Card
1-14-82 Dave

Law Offices
SALTER, McKEEHEN, GUDGER & RABINE
a professional corporation
59 East 11th Avenue, Suite A
Eugene, Oregon 97401

Charles M. Gudger III
Monte C. McKeehen
Robert A. Rabine*
James R. B. Salter*
Carleton H.A. Taber**
Kevin Patrick Dolan*
Lewis Lynn Ellsworth**
J. B. Ransom*
Robert Owen Middleton*

*Member Washington Bar only
**Member Washington and California Bars
All others Oregon Bar only

Eugene Office:
Telex 152556 SEATAC
Telephone (503) 686-2244

Seattle Office:
3300 Westin Building
Seattle, Washington 98121
(206) 624-3216

Please reply to Eugene office

January 11, 1982

Secretary of State
State of Oregon
Salem, OR 97310

COPY FOR YOUR INFORMATION

Re: Release of Claim on Performance Bond
Allen Blvd., Job 9026; Bull Run Road, Job 9025I; Bend South City Limits, Job [redacted]; Warren-Scappoose, Job 8798

also #8 9714

Dear Sir:

Enclosed for filing in each of the above matters is Release of Claim on Performance Bond.

Very truly yours,

SALTER, McKEEHEN, GUDGER & RABINE

Monte C. McKeehen, P. C.

MCM:db

Enclosures

cc: Department of Transportation
Thomas H. Hoyt

RECEIVED
JAN 1
COMMISSION
DEPARTMENT OF TRANSPORTATION

RECEIVED
STATE HWY ENGR
JAN 12 '82
REFER TO
FOR
Info | Invest | R/D | D.R | Sign | Act | File

RELEASE OF CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION,
by and through the Oregon State
Highway Division

BE IT HEREBY ACKNOWLEDGED that the previous claim on performance bond filed by Signals & Control Systems, Inc., a Washington corporation, against R.L. Coats, for the sum of $16,402.71, in reference to Department of Transportation Job No. [redacted] and against the surety bond being posted through Safeco Insurance Company of America, said bond being dated June 7, 1979, is hereby withdrawn with prejudice.

All sums due and owing pursuant to the terms and provisons of Signals & Control Systems, Inc. invoice number 0426-2 dated October 13, 1980, is hereby satisfied in full, payment being hereby acknowledged.

This Release of Claim on Performance Bond is being filed with the Secretary of State's office or the clerk or auditor of the Oregon Department of Transportation by and through the Oregon State Highway Division. This Release of Claim on Performance Bond does not waive Signals & Control Systems, Inc.'s rights reserved to Signals & Control Systems, Inc. under the terms and provisions of a separate agreement between Hamilton Electric, Inc. and Signals & Control Systems, Inc. dated the_____day of January, 1982.

DATED this____day of January, 1982.

SIGNALS & CONTROL SYSTEMS, INC.

By _____
President

RECEIVED
JAN 12 1982
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

CERTIFIED TRUE COPY
By _____

VICTOR ATIYEH
GOVERNOR

Department of Transportation
STATE HIGHWAY DIVISION

NOTED
H.S.COULTER

IN REPLY REFER TO
FILE NO

December 18, 1981

CON 5 #8950

R. L. Coats Construction
P.O. Box 1008
Bend, OR 97701

RE: Time Extension Request
Bend SCL - Murphy Rd.
Contract No. 8950
F -4-2(6)

Gentlemen:

Your request for additional contract time in which to complete the above project has been carefully reviewed. A contract time extension of 9 calendar days is granted for completion of phase "B" of the contract due to extra and additional work performed under Extra Work Orders 1 and 3 and Price Agreements 6, 7 and 12. The revised completion time for phase "B" is 449 calendar days.

The additional time of 88 calendar days requested for completion of phase "A" is denied since the delay appears to have been the results of slow materials delivery.

The remaining 87 calendar days requested for completion of phase "B" is also denied since this delay in completion was the result of faulty equipment furnished.

There remains 88 calendar days assessed under phase "A" and 87 calendar days assessed under phase "B" of this contract.

Should you wish further review or to submit additional data, please contact Project Manager W. W. Robertson.

Sincerely,

C. T. Keasey, P.E., P.L.S.
Assistant State Highway Engineer

CTK:OBJ:cb

cc. H.S. Coulter (att. 2 letters)
D.D. Allen " 1 "
W.W. Robertson " 1 "
FHWA " 2 "
R. Church

RECEIVED
STATE HWY ENGR
DEC 21 '81
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Form 734-3123

STATE OF OREGON

RECEIVED
DEC 17 1981
CONSTRUCTION BRANCH

ASHE CAE FOE QCE SCS EEO OM CA TE TC FE CP

INTEROFFICE MEMO
BEND, OR 97708

TO: Bryant Jackmond
Contract Administration Engineer

DATE: December 16, 1981

12-18-81

FROM: Robert C. Pool
Region Construction Engineer

SUBJECT: Bend SCL-Murphy Road
Contract 8950

LTK -
I concur with Region and recommend granting 9 C.D. for phase "B" only and denying the remainder of the request.

Here is a request for additional time that was submitted by R. L. Coats and Hamilton Electric. It was submitted to us on July 21, 1981, but we have been holding it, waiting for additional information needed to justify the request. This information still has not been provided by the supplier, but R. L. Coats and Hamilton have requested that we process the request as is. I suspect they feel that no further information is available that would be helpful.

The project was set up with separate time limits on Units A and B.

UNIT A

Time ran out on December 29, 1979 and work was completed on March 26, 1980, for an overrun of 88 days. The contractor has requested relief on the full 88 days because of non-availability of a Fairchild chip, which is a soft ware component. He received the chips on 12/7/79 and delivered the controllers to Salem on 3/12/80. We have not received any information as to why it took from 12/7/79 to 3/12/80 to install the chips in the controllers. Even if there was some good reason, the shortage of materials is not a valid reason for extending contract time. Recommend no increase here.

UNIT-B

Time for this unit ran out on 9/25/80 and all work was complete of 2/24/81. This was an overrun of 96 days. Nine additional days is justified (see W. Robertson's transmittal).

The signals were complete and operational except for the fire pre-emption equipment on 9/10/80. Installation of fire pre-emption equipment was complete on 2/24/81. Although the fire pre-emption equipment work on this project was only $13,332, it was an integral part of a $138,000. signal system. It cannot be separated. The City of Bend had made advance payment for the equipment and they were upset because it was not functioning. I can find no specification and can see no reason why we should grant additional time because of the delay in furnishing the fire pre-emption equipment.

The liquidated damages are much less than they would have been if we had not erred in issuing a stop work order for the period 8/29/80 through 11/24/80. Had we not done this, there would be an additional 88 days of liquidated damages.

RCP:pw
Enclosure

99.50

L.

10 - 7 - 81

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
J.C. Compton Co. No. 9235	Fossil Cr.-Bone Cr. Grant County	Sept. 15, 1981
Plumley Rock Crushing, Inc. No. 9299	Chiloquin Rock Prod. Klamath County	Sept. 15, 1981
Supervision, Inc. & Workman Const. Co. No. 9090	Thomas Creek (Devaney) Bridge Linn County	Sept. 17, 1981
Wildish Corvallis Const. Co. No. 8977	Grand Ronde (M.P. 20.0 - 21.7) Polk County	Sept. 22, 1981
R. L. Coats No. 8950	Bend S.C.L.-Murphy Rd. Deschutes County	Sept. 28, 1981

October 7, 1981

For C. T. Keasey
Asst. State Highway Engineer

8950

October 1, 1981

Safeco Insurance Company
4101 S.W. Kruse Way
Lake Oswego, OR 97034

CDM 5
#8950

Gentlemen:

Contract No. 8950 awarded to R. L. Coats for work on the Bend S.C.L.-Murphy Road Section of The Dalles-California Highway in Deschutes County was completed on April 14, 1981 and accepted by the State Highway Division on September 28, 1981.

Final payment in the amount of $5,000 will be released to the contractor after October 6, 1981. The total contract amount is $1,594,374.00 including $6,467.61 for work performed under force account.

You have been previously notified of a claim filed against the performance bond on this contract which has been paid.

Sincerely,

Robert W. Gorman
TRANSPORTATION SERVICES

jz
cc: R. L. Coats
[redacted] Skyline Ranch Road
Bend, OR 97701

bc: C. T. Kenney
Walt Hart
V. E. Skoog Attn: Dick Hacek
A. Shirley

STATE OF OREGON
Contract Payments 378-6594

INTEROFFICE MEMO
FILE: CON 5

TO: Bob Gormsen
Manager, Commission Services

DATE: September 28, 1981

FROM: C. T. Keasey
Assistant State Highway Engineer

SUBJECT: Highway Contract Acceptance

The contractor has completed all work according to specifications and I hereby accept the following contract as of September 28, 1981.

Contract	8950	On Site Work Substantially Completed	February 24, 1981
All Work Completed	April 14, 1981		
Project	Bend S.C.L.-Murphy Rd.		
Highway	The Dalles-California		
County	Deschutes		
Type of Work	Grading, Paving, Signing & Signals		
Contractor	R. L. Coats		

RDC:mk

cc: H. S. Coulter
R. D. Church

RECEIVED
STATE HWY ENGR
SEP 29 '81
TO
FOR
Info | Inve. | R/D | D/R | Sign | Art | File

NOTED
R. W. GORMSEN

10-1-81
Safety written

81-128-1987

8950

September 2, 1981

Joseph, Gudger & McKeehan
Attorneys at Law
39 East 11th Avenue, Suite A
Eugene, OR 97401

COM 5
#8950

Attention: Monte C. McKeehan

Gentlemen:

This is in answer to your letter of August 18 which was written in behalf of your client, Signals and Control Systems, Inc.

In reviewing our file it appears that a claim for $16,402.71 was filed and satisfied previously.

Enclosed is a copy of our data card on the progress of that contract. We will hold your Notice of Claim unfiled in this office unless we hear from you that this is a new claim and not a duplicate of the November 10, 1980 filing.

Sincerely,

Robert W. Gutmann
COMMISSION SERVICES

RWG:ja
Attachment

JOSEPH, GUDGER & McKEEHEN
ATTORNEYS AT LAW
59 EAST 11TH AVENUE, SUITE A
EUGENE, OREGON 97401

JON A. JOSEPH
CHARLES M. GUDGER, III
MONTE C. McKEEHEN, P.C.

AREA CODE 503
686-2244

August 18, 1981

Department of Transportation
Transportation Building
Salem, OR 97310

Re: Claim on Performance Bond
Signals & Control Systems, Inc.,
Claimant - R. L. Coates, General
Contractor; Contract 8950

Gentlemen:

Enclosed for filing is a certified true copy of Claim on Performance Bond in the above entitled matter.

Very truly yours,

JOSEPH, GUDGER & McKEEHEN

Monte C. McKeehen >

MCM:db
Enclosure

RECEIVED
AUG 20
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

RECEIVED
STATE HWY ENGR
AUG 19 '81
REFER TO
FOR
Info | Review | R/D | D/R | Sign | Act | File

RECEIVED
DOT DIRECTOR
AUG 19 '81
REFER TO
FOR
Info | Review | R/D | D/R | Sign | Act | File

CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION, by and through the Oregon State Highway Division:

NOTICE IS HEREBY GIVEN that the undersigned, SIGNALS & CONTROL SYSTEMS, INC., a Washington corporation, has a claim for certain traffic signal equipment and related labor involved in the installation thereof, as set forth on Exhibit "A" to this claim, said exhibit being attached hereto and incorporated herein as though fully set forth, and the person by whom said equipment was furnished was Signals & Control Systems, Inc., by and through its officers and employees, and the persons performing said labor to assist in the installation was Signals & Control Systems, Inc. by and through its officers and employees, Gordon O. Dale and/or David Edwin Naf; said claim being in the sum of $16,402.71 against the bond taken from R. L. Coats, 63285 Skyline Ranch Road, Bend, OR 97701 and the surety thereon being Safeco Insurance Company of America, by way of performance bond dated June 7, 1979, for the furnishing of the equipment set forth on Exhibit "A" and related labor to assist in installation on the Bend South City Limits, Murphy Road, Deschutes County, City of Bend, Oregon and in reference to Oregon State Highway job No. 8950. Said equipment and labor was provided by claimant to Hamilton Electric, 232 West 5th Avenue, P. O. Box 708, Eugene, Oregon 97440, who was a subcontractor of R. L. Coats.

This notice is being filed with the Secretary of State's office or the Clerk or Auditor of the Oregon Department of Transportation, by and through the Oregon State Highway Division, according to and in conformance with ORS 279.528.

DATED this 5 day of August, 1981.

SIGNALS & CONTROL SYSTEMS, INC.

By _____

Title: Secretary

RECEIVED
AUG 20 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

CERTIFIED TRUE COPY
By _____

EXHIBIT "A" TO
CLAIM ON BOND OREGON STATE
HIGHWAY - DEPARTMENT OF
TRANSPORTATION JOB #8950

Signals & Control Systems, Inc. equipment furnished together with labor for installation re: Invoice 0420-2 - invoice dated October 13, 1980:

RETAINAGE WITHHELD FROM PAYMENT ON 5/8/80 $16,402.71

CLAIM ON PERFORMANCE BOND

RECEIVED
AUG 20 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

8450

COPY

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	Oregon
MONTHLY TRANSACTION NUMBER 8-153		County Deschutes
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	Project Number F-4-2(6)
MODIFICATION NUMBER 1	8-20-81	

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on June 18 , 19 79 , is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 1,741,221.00	$ 1,850,221.00
Federal funds	$ 1,534,885.00	$ 1,630,968.00
Other revisions		

This modification is made for the following reasons: To include increase in construction costs.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 20th day of August , 19 81 .

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By _____

Asst. State Hwy. Engineer
(Title)

XXX By For: H.S. Coulter

State Highway Engineer
(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: Dale E. Wilken

Form PR-2A
(Rev. 10-76)

Previous editions are obsolete

89.50

L.

JOSEPH, GUDGER & McKEEHEN
ATTORNEYS AT LAW
59 EAST 11TH AVENUE, SUITE A
EUGENE, OREGON 97401

JON A. JOSEPH
CHARLES M. GUDGER, III
MONTE C. McKEEHEN, P.C.

AREA CODE 503
686-1244

August 18, 1981

Department of Transportation
Transportation Building
Salem, OR 97310

Re: Claim on Performance Bond
Signals & Control Systems, Inc.,
Claimant - R. L. Coates, General
Contractor; Contract 8950

Gentlemen:

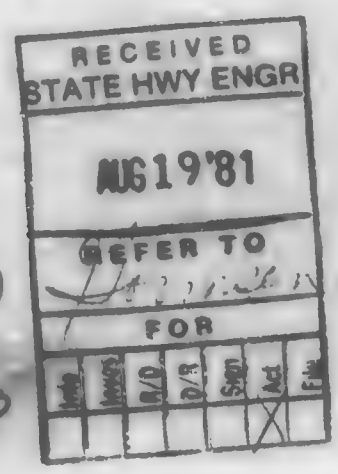
Enclosed for filing is a certified true copy of Claim on Performance Bond in the above entitled matter.

Very truly yours,

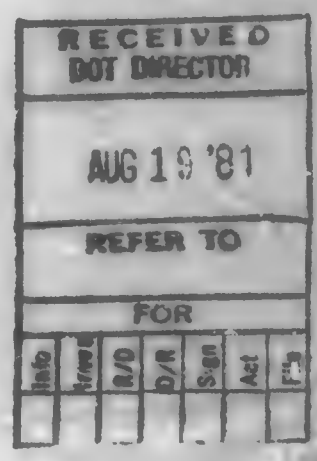
JOSEPH, GUDGER & McKEEHEN

Monte C. McKeehen

MCM:db
Enclosure



orig to 8/20



CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION, by and through the Oregon State Highway Division:

NOTICE IS HEREBY GIVEN that the undersigned, SIGNALS & CONTROL SYSTEMS, INC., a Washington corporation, has a claim for certain traffic signal equipment and related labor involved in the installation thereof, as set forth on Exhibit "A" to this claim, said exhibit being attached hereto and incorporated herein as though fully set forth, and the person by whom said equipment was furnished was Signals & Control Systems, Inc., by and through its officers and employees, and the persons performing said labor to assist in the installation was Signals & Control Systems, Inc. by and through its officers and employees, Gordon O. Dale and/or David Edwin Naf; said claim being in the sum of $16,402.71 against the bond taken from R. L. Coats, 63285 Skyline Ranch Road, Bend, OR 97701 and the surety thereon being Safeco Insurance Company of America, by way of performance bond dated June 7, 1979, for the furnishing of the equipment set forth on Exhibit "A" and related labor to assist in installation on the Bend South City Limits, Murrhy Road, Deschutes County, City of Bend, Oregon and in reference to Oregon State Highway job No. 8950. Said equipment and labor was provided by claimant to Hamilton Electric, 232 West 5th Avenue, P. O. Box 708, Eugene, Oregon 97440, who was a subcontractor of R. L. Coats.

This notice is being filed with the Secretary of State's office or the Clerk or Auditor of the Oregon Department of Transportation, by and through the Oregon State Highway Division, according to and in conformance with ORS 279.528.

DATED this 5 day of August, 1981.

SIGNALS & CONTROL SYSTEMS, INC.

By _____

Title: _____

CERTIFIED TRUE COPY

By _____

EXHIBIT "A" TO
CLAIM ON BOND OREGON STATE
HIGHWAY - DEPARTMENT OF
TRANSPORTATION JOB #8950

Signals & Control Systems, Inc. equipment furnished together with labor for installation re: Invoice 0420-2 - invoice dated October 13, 1980:

RETAINAGE WITHHELD FROM PAYMENT ON 5/8/80 $16,402.71

Con't

Date	% of work completed	Comments
4-21-80		Contractor took possession of Brosterhaus and Murphy controllers
4-30-80		Class "B" A.C. Base completed
5-1-80		60 day extension changed to 88 days
5-5-80	65%	Reed Mkt. Rd. Signals completed except for fire pre-emption
8-25-80	98%	98 workdays on Unit "B" used
8-29-80		Stop Work Order
405 days 9-10-80	SAME L.D.	Brosterhaus & rurphy signals completed except fire pre-emption
9-16,17,18-80		Extra Work Order on Signals (Fire Pre-emption)
11-24-80		Resumed workday count
2-24-81		Second Notification on Unit "B"
3-4-81	100%	Installed revised Chips

FORM E-902

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Bend, Oregon 97708

RDE RE ROE PLA FAE
RTE RECEIVED GEO
RUE AUG 18 1981 RDE
RSO REGION 4 RBE
ASSIGNED Paul

DATE August 11, 1981

TO Dale D. Allen
Regional Engineer

FROM W. W. Robertson
Resident Engineer

SUBJECT Bend S.C.L. - Murphy Road
Contract No. 8950
Time Extension

Herewith for your consideration find 2 copies of contractors request for a increase in number of workdays to complete this construction contract.

The contractor has requested time equal to those days charged as liquidated damages. Unit "A" was charged 288 less 200 equals 88 days at $100.00 for $8,800. Unit "B" was charged 536 days less 440 equals 96 days at $200.00 for $19,200 for a total of $28,000.00

This office could find no specification to allow the contractor's request as per attached letter with the following exceptions.

Price Agreement No. 6	J Boxes @ 3 locations	3 Days
Price Agreement No. 7	Change meter service(Murphy Road)	1 Day
Price Agreement No. 12	Resaw Loops	1 Day
Extra Work Order No. 1	Advance Fire Pre-emption	3 Days
Extra Work Order No. 3	Change Meter Service (Brosterhaus)	1 Day

Total days recommended for Price Agreement and Extra Work (Unit "B" 9 Days

In reading the attached correspondance the subcontractor ordered the controller units on 5-30-79, received the Fairchild Chips on 12-7-79 and delivered the units to Salem lab on 3-12-80. In checking with Robert Judson of the electrial section, in Salem this is a very long period of time. I mention this as it was asked in the May 7, 1381 meeting.

The following information is offered to summarize the events of the project.

Date	%of work completed	comments
6-13-79	0	Workday count commenced on Units A & B
12-5-79		PMBB completed North end of project to Canal
12-12-79		Hamiliton started work at Reed Mkt. Rd. Signal
12-29-79	47	Workdays on Unit "A" used
1-3-80		Hamiliton requested 60 day extension
3-12-80		Salem Lab received controllers
3-21-80		Contractor took possession of Reed Mkt.Control
3-26-80		Second Notification Unit A
3-27-80		Reed Mkt. Rd. Signals Flashing (Noon)
4-4-80		Class "B" A.C. Base completed on Unit"A"

8950

August 3, 1981

Hamilton Electric, Inc.
P. O. Box 708
Eugene, OR 97440

CON 5
#8950

Attention: Emerson Hamilton

Gentlemen:

Thank you for your letter of July 23, 1981, with attached Satisfaction and Release of Claim on Performance Bond signed by Signal and Control Systems, Inc.

This was in connection with a claim filed in the amount of $16,402.71 against you as a subcontractor on Contract No. 8950 with R. L. Coats for work on the Bend S.C.L.-Murphy Road Section of The Dalles-California Highway in Deschutes County.

This information will be noted in our records and we will advise the prime contractor and the surety of the receipt of this payment.

Sincerely,

Robert W. Gorman
CONSTRUCTION SERVICES

jas
cc: R. L. Coats
[illegible] Ranch Road
Bend, OR 97701

Safeco Insurance Co. of America
1500 S.W. First Avenue
Portland, OR 97201

Joseph, Gudger & McKeehan
Attn: Monte C. McKeehan
Attorneys at Law
59 East 11th Avenue, Suite A
Eugene, OR 97401

NOTED ON CARD
jas 8/3/81

Oregon State Highway Division
Salem, Oregon July 30, 1981

Federal Aid Project
No. F-4-2(6)

Bend SCL-Murphy Rd. Section
The Dalles-California Highway
Deschutes County

REVISED PROJECT AGREEMENT ESTIMATE

Type Code 6203
Roadway (Sta. 102+50 to Sta. 210+12.64)

Subtotal of previous estimate of June 8, 1979		$1,415,730.50

Previous Estimate

Work by Pacific Power & Light (S.F.O. #1)	All Required	$ 26,990.00
		$ 26,990.00

Revised Estimate

Work by Pacific Power & Light (Rev. SFO #1)	All Required	$ 52,547.44
Work by Roats Water Works (S.F.O. #4)	All Required	2,954.50
Asphalt Price Adjustment (Nov. 2979 thru July 1980	All Required	80,488.06
		$ 135,990.00
	INCREASE	$ 109,000.00
	SUBTOTAL	$1,524,730.50
	ENGINEERING	176,966.50
	TOTAL	$1,701,697.00

Type Code Y031
Traffic Signal (At 3 Intersections)

Total the same as previous estimate of June 8, 1979	$ 148,524.00

Length of Roadway ---------- 2.048 mi.
Cost of Roadway Per Mile ----------$830,906.74

SUMMARY OF FUNDS (88.15%)

Description	Total Cost	Federal Funds	State Funds
Roadway	$1,701,697.00	$1,500,045.00	$201,652.00
Signals	148,524.00	130,923.00	17,601.00
TOTAL	$1,850,221.00	$1,630,968.00	$219,253.00

Group 1 99% Group 8 01%
Contract No. 8950
Prefix 9-1951
Prefix 9-1014

ELECTRICAL CONTRACTING

July 23, 1981

Oregon State Highway Division
Oregon Department of Transportation
Highway Building
Salem, Oregon 97310

The attached claim on performance bond dated November 7, 1980 was filed in reference to O.S.H.D. Contract #8950. Attached also is a satisfaction and release of the claim on that bond dated June 27, 1981. This should allow any retentions on this contract to cover this claim to be released immediately. If you have any questions, please contact us.

Very truly yours,

Emerson Hamilton

EH:grg

Attachments

cc: Secretary of State
Will Robertson, R.E.
R. L. Coats Construction
Safeco Insurance Co. of America
Transamerica Insurance Co.

RECEIVED
JUL 24 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

RECEIVED
STATE HWY ENGR
JUL 24 '81
REFER TO
FOR

232 WEST 5th AVENUE 503/485-4456 POST OFFICE BOX 708 EUGENE, OREGON 97440

CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION, by and through the Oregon State Highway Division:

NOTICE IS HEREBY GIVEN that the undersigned, SIGNALS & CONTROL SYSTEMS, INC., a Washington corporation, has a claim for certain traffic signal equipment and related labor involved in the installation thereof, as set forth on Exhibit "A" to this claim, said exhibit being attached hereto and incorporated herein as though fully set forth, and the person by whom said equipment was furnished was Signals & Control Systems, Inc., by and through its officers and employees, and the persons performing said labor to assist in the installation was Signals & Control Systems, Inc. by and through its officers and employees, Gordon O. Dale and/or David Edwin Naf; said claim being in the sum of $16,402.71 against the bond taken from R. L. Coats, 63285 Skyline Ranch Road, Bend, OR 97701 and the surety thereon being Safeco Insurance Company of America, by way of performance bond dated June 7, 1979, for the furnishing of the equipment set forth on Exhibit "A" and related labor to assist in installation on the Bend South City Limits, Murrhy Road, Deschutes County, City of Bend, Oregon and in reference to Oregon State Highway job No. 8950. Said equipment and labor was provided by claimant to Hamilton Electric, 232 West 5th Avenue, P. O. Box 708, Eugene, Oregon 97440, who was a subcontractor of R. L. Coats.

This notice is being filed with the Secretary of State's office or the Clerk or Auditor of the Oregon Department of Transportation, by and through the Oregon State Highway Division, according to and in conformance with ORS 279.528.

DATED this 7th day of November, 1980.

SIGNALS & CONTROL SYSTEMS, INC.

By _____

Title: Sec. Treas.

CERTIFIED TRUE COPY
By _____

RECEIVED
JUL 24 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

EXHIBIT "A" TO
CLAIM ON BOND OREGON STATE
HIGHWAY - DEPARTMENT OF
TRANSPORTATION JOB #8950

Signals & Control Systems, Inc. equipment furnished together with labor for installation re: Invoice 0420-2 - invoice dated October 13, 1980:

RETAINAGE WITHHELD FROM PAYMENT ON 5/8/80 $16,402.71

RECEIVED
JUL 24 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

CLAIM ON PERFORMANCE BOND

SATISFACTION AND RELEASE OF CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION, by and through the Oregon State Highway Division

BE IT HEREBY ACKNOWLEDGED that that previous claim on performance bond filed by Signals & Control Systems, Inc., a Washington corporation, against R. L. Coats Construction Company, for the sum of $16,402.71, in reference to Department of Transportation job No. 8950, and against the surety bond being posted through Safeco Insurance Company, said bond dated June 7, 1979, has been paid in full.

Satisfaction of all sums due and owing pursuant to the terms and provisions of Signals & Control Systems, Inc. invoice No. 0426-2 dated October 13, 1980 is hereby satisfied in full, full payment being hereby acknowledged.

This satisfaction and release of claim on performance bond is being filed with the Secretary of State's office, or the clerk or auditor of the Oregon Department of Transportation, by and through the Oregon State Highway Division.

DATED this 22 day of JUNE, 1981.

SIGNAL & CONTROL SYSTEMS, INC.

By _____ Title

RECEIVED
JUL 24 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

8950

L.

LAW OFFICES

HOYT, GAYDOS & CHURNSIDE, P. C.

THOMAS H. HOYT
GERRY GAYDOS
DONALD J. CHURNSIDE

THE CITIZENS BUILDING
975 OAK STREET, SUITE 910
EUGENE, OREGON 97401

TELEPHONE
AREA CODE 503
485-5151

May 13, 1981

Monte C. McKeehen, Esq.
Joseph, Gudger, McKeehen & James
Attorneys at Law
59 East 11th Avenue, Suite A
Eugene, Oregon 97401

Re: State of Oregon, Department of Transportation
Contract [redacted] with R. L. Coates Construction Co.,
Hamilton Electric purchase order agreement with
Signals and Control Systems, Inc. #684

Dear Mr. Keahen:

You filed a claim against bond on the above contract on behalf of Signals. Signals has been fully paid and has acknowledged on several occasions that the liquidated damages now being disputed are its responsibility. This claim on bond should be released immediately and on behalf of Hamilton Electric, Inc. I so request.

Yours truly,

Thomas H. Hoyt

THH:s
cc: Hamilton Electric
R. L. Coates Construction Co.
Smith & Crakes Insurance
Robert W. Gormsen
Dept. of Transportation

gormsen noted (no resp. req)

RECEIVED
MAY 14
COMMUNITY SERVICES DEPARTMENT TRANSPORTATION

8950

4

ROAD DESIGN SECTION 378-6558

J. B. Boyd, Manager
Right of Way Section

May 12, 1981

J. H. Versteeg
Road Design Engineer

File No. 51995
Bend South City Limits-Murphy Rd. Section
[redacted] Cascade Highway
Deschutes County

Attached is a description, an authorization, correspondence and prints for one file to cover an encroachment of the subject project.

ORIGINAL SIGNED BY
W. H. WAKERLIG

By: W. H. Wakerlig
Right of Way Descriptions Engineer

[redacted]

Versteeg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
MAY 14 1981
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up
Action

ROW 18-4

April 23, 1981

TO: Mr. D. E. Wilken
Division Administrator
Federal Highway Administration

FROM: D. E. Swan
Operations Programming Engineer

SUBJECT: Cost Overrun
Power Line Relocation
Pacific Power and Light Co.
Bend SCL-Murphy Road Section
The Dalles-California Hwy.
Deschutes County
Project No. F-4-2(6)

RECEIVED
TECHNICAL SERVICES
APR 24 '81
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Here is a copy of Pacific Power and Light Company's Invoice No. 08-217, dated August 20, 1980, which covers the final cost of the relocation of aerial power line facilities in conflict with this project.

Final cost of the power line relocation work is $193,758.99. The State's share of the relocation cost is 16/59 (27.12%) or $52,547.44. The estimated cost of the relocation work, as approved by your PR-1240 dated March 27, 1979, was $99,518 of which the State's portion was $26,990. The State's share of the final cost of the relocation exceeds the estimated cost by $25,558 or 94.69%.

Richard O. Hevig, Region IV Utility Engineer, has submitted a letter of explanation for the cost overrun, dated October 17, 1980. A copy of Mr. Hevig's letter is attached for your information. One of the main problems cited was that right of way was not available prior to the letting of the Highway Construction Contract which necessitated Pacific Power and Light Company bringing in outside crews to accomplish the relocation of their facilities in a timely manner. Our highway project was in an urban area under extremely heavy traffic conditions which compounded PP&L's relocation problems.

FP&L's relocation plan, approved by the Highway Division, did not provide adequate clearance for the installation of traffic signals at certain intersections. This necessitated the second relocation of six poles and aerial facilities. FP&L agreed to do the second relocation at the same division of cost set up for the overall relocation work. The State definitely benefited by the application of the original apportionment to the second relocation cost.

It is the State's opinion that all of the power line relocation work accomplished by FP&L was justified and that they are entitled to full reimbursement of the State's share of the relocation cost in the amount of $52,548. Your approval of the final actual cost of relocation of FP&L's power line relocation work under the provisions of PPM 30-4 is requested. Actual cost to the State will be $52,548.

DES/JMC/lir

cc: E. S. Hunter
Jack M. Cartwright
A. O. Havig
Rich Evans

8950

BEND S.C.L. - MURPHY ROAD
NARRATIVE REPORT
8950

Prepare ltr of Acknowledgement

REFERRED TO Cole

Beard		Stoudenmeyer	
Cole		Mann	
Eriksen		Watson	
Hager	Dorn	Leu	
Returned	Please Do	File Copy	Due

BY FINAL DESIGN ENGINEER

4

This project was constructed to upgrade a two lane facility to four lanes, with a continuous lt. turn lane. Curbs, sidewalks, concrete driveways and provisions for drainage (drain holes) were constructed from the North end of the project (Sta. 102+50) to the Central Oregon Irrigation canal (Sta. 125+50). Throughout the remainder of the project, curbs without drainage facilities were used intermittently to control access.

WORK ON UTILITIES

The utility work commenced late March 1979, when the State survey crew ran offset lines along the Lt. and Rt. edges of the existing pavement. They then helped the Power Co. with the pole layout.in reguards to future road approaches and street connections Radii. NOTE: At this time some R/W options had not been completed. Early in June the City of Bend moved some water meters and by the end of June both the Gas Co., Telephone Co. and Roats Water Co. had started moving their facilities. This work continued during construction, until December 1979 when for the most part it was completed. The Power Co. had to increase their pole lengths at Reed Market Road to clear our signals. This oversight must be shared by the State and the Power Co. engineers.

PRE-CONSTRUCTION CONFERANCE

The pre-construction conferance was held June 4, 1979 with all utilities present.

CLEARING AND GRUBBING

The clearing and grubbing commenced June 12, 1979 and the grading operation started the next day. The contractor worked on the Rt. side the total length of the project then moved over to the Lt. side completing the North end of the project first, working South. For the most part grading was completed the first part of November, 1979.

DRAINAGE AND IRRIGATION

The drainage and irrigation work started the middle of June,1979 and was not completed until September 15, 1980, when a drain hole was re-drilled. Three water rights were purchased from their respective property owners in lieu of constructing siphon boxes. The pipes were extended to the R/W (future conduits) but the system was not completed at significant cost savings. Many revisions occured in this work but it was done with the irrigation district or the property owners approval. The manholes, special inlets and drain wells had to be changed on the east side (lt. side) of the project to allow a well driller to set under the power lines to drill or maintain (future) the drain holes. Many concrete structures were pre-cast to expidite the work and cause less impact on constructing time.

CONCRETE CURBS, SIDEWALKS AND DRIVEWAYS

The concrete curbs, sidewalks and driveways commenced September 7, 1979 and were not completed until August 1980. The sub-contractor used a track type curb extrusion machine which did not always provide a good line on the curb and much chipping removing re-placing and repair work was done. On occasion a driveway opening was omitted and this curb was removed and replaced by price agreement. One driveway into a commercial business had to be removed and replaced because of grade differentia.. A study of this problem could be made and possibly be incorporated into the Standard Drawings.

MATERIAL SOURCE

The material source for this project was owned and operated by the Prime Contractor in Bend. For the most part the base aggregates were produced prior to the project commencement and were tested by this office and other testing laboratories.

PAVING

The paving commenced November 11, 1979 on Unit"A" (north end of project) and the PMBB and base course of Class "B" Asphalt Mixture was completed December 11, 1979, on this unit. The paving work resumed again March 7, 1980 and was for the most part completed by May 1980. A few driveways were constructed and slope paving was performed during the month of June. This project was awarded 3rd place paving award in its catagory.

SIGNAL WORK

The signal work commenced December 12, 1979 on Unit "A" and the Reed Market Road unit was operational March 26, 1980 (timed on May 5, 1980) .The signals at Brosterhaus and Murphy Roads were timed September 10, 1980 but were not completed until March 4th 1981. The power supply had to be changed at Brosterhaus Road. The traffic loops at Hayes Ave. were layed out wrong, and required re-sawing. The loops at Murphy Road were revised. There was a major delay in obtaining a "Chip" for the controllers and revisions to the unit in requards to the fire pre-emption system has resulted in many days of Liquidated Damages.

RETAINING WALL

A retaining wall was constructed Lt. Sta. 121+00 by Price Agreement. This area was within a slope easement but if a fill slope had been constructed it would have cost the use of five motel units to the property. Additional curbs, sidewalks and stairways were constructed Lt. Sta. 106+00 to enable the property some means of landscaping and access to a area that the project's construction had really clobbered.

GUARD RAIL AND SIGNING

The guard rail and signing was constructed by a sub-contractor and was routine.

TRAFFIC CONTROL

Traffic control on the project was most outstanding, The contractor,through cones, barracades,plastic markers,and flagmen maintained two way traffic at all times. Except for getting a hauling vehicle into the line, traffic flowed without delay. One major delay did occur when a gas main was broken and the police detoured one lane of traffic through a parking lot until the break was repaired (early AM).

LIQUIDATED DAMAGES

The workday charges commenced on June 13, 1979. The 200 days allowed on Unit "A" was used December 29, 1979. By March 26, 1980 88 extra days were used on Unit "A". The 440 days allowed on Unit "B" were used on August 25, 1980. A Stop Work Order was issued August 29, 1980 through September 8, 1980 and September 11,1980 through November 23, 1980. Time charges commenced again November 24, 1980 because the signals were not operating correctly. Workday charges were charged until February 25, 1981, resulting in 96 days Liquidated Damages on Unit "B". The prime contractor

has withheld moneys for liquidated damages from his subcontractors payment for work on the signals. A request for additional workdays had been received before the project was finished but was returned for additional information. It is expected that the subcontractor and his suppliers will make a new request at a later date.

MAIL BOXES

All the mailboxes were set temporarily then reset after construction so that the mailman could deliver the mail without stopping on the highway or paved shoulders.

ENCROACHMENT ON PRIVATE PROPERTY

Encroahcment on private property was made rt. of station 117+50 involving a trianglular area approximately 235 sq.ft. The property owner R.A. Hatch had a survey made of the property, finding this encroachment. This office checked the survey and negoiations are presently being made to resolve the problem.

1 Verstoeg ✓
Anderson
2 Christensen NEW
Olson
CY Sullivan
Terpin
Trout
Wakerlig

RECEIVED
APR 15 1981
ROAD DESIGN SECTION

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Bring Up ___/___/___
Action

STATEMENT OF OVERRUNS AND UNDERRUNS

PROJECT: BEND S.C.L. - MURPHY ROAD — CONTRACT NO. 8950

HIGHWAY: THE DALLES - CALIFORNIA — PREFIX NO. 9-1014

COUNTY: DESCHUTES — F.A. NO. F-4-2(6)

ITEM NO.	ITEM	UNIT	ORGINIAL	SEMI-FINAL	+%
		BID ITEMS	$1,492,594.50	$1,463,265.30	-.02%
		ANTICIPATED ITEMS	$89,700.00	$66,704.72	-26%
		ASPHALT ADJUSTMENT	$32,200.00	$104,235.54	+224%
		CONTINGENCIES	$72,652.25	$51,687.31	-29%
		ENGINEERING	$129,159.56	$125,603.00	-.03%
		LIQUIDATED DAMAGES		-$28,000.00	
		TOTAL	$1,816,306.31	$1,783,495.87	-.02%
3	TEMPORARY SIGNS HIGH ON ORGINIAL ESTIMATE	SQ.FT.	$3,000.00	$1,965.00	-35%
4	TEMPORARY BARRICADES HIGH ON ORGINIAL ESTIMATE	EACH	$1,500.00	$0.00	-100%
5	TEMPORARY RAIL HIGH ON ORGINIAL ESTIMATE	Lin.ft.	$5,600.00	$0.00	-100%
6	PLASTIC SAFETY MARKERS HIGH ON ORGINIAL ESTIMATE	EACH	$4,000.00	$2,600.00	-35%
7	FLAGMEN HIGH ON ORGINIAL ESTIMATE	HOUR	$4,000.00	$1,903.50	-52%
10	DITCH EXCAVATION HIGH ON ORGINIAL ESTIMATE 1 LOCATION ITEM	CU.YD.	$3,000.00	$2,575.40	-14%
11	EMBANKMENT IN PLACE QUANTITIES CHANGED(FILLING LOW AREAS) AFTER LOCATION	CU.YD.	$12,050.00	$6,673.40	-45%
12	TRENCH EXCAVATION ITEM USED FOR CURBS AFTER PAVING, MANY REVISIONS OF ITEM	CU. YD.	$16,500.00	$21,432.60	+30%
14	WATERING WET STOCKPILES ALSO GRADING CONSTRUCTION DURING WET SEASON	M-GAL.	$9,200.00	$415.30	-95%
16	ASPHALT IN BITUMINOUS BASE ORGINIAL ESTIMATE SLIGHTLY HIGH	TON	$73,000.00	$65,225.00	-11%
18	CLASS 'B' ASPHALT MIXTURE SEE BID ITEM NO. 19	TON	$156,000.00	$206,396.28	+32%
19	CLASS'B' ASPHALT MIX (LEVELING) WAS INCLUDED IN BID ITEM NO. 18	Ton	$48,000.00	$0.00	-100%
21	ASPHALT IN TACK COAT ITEM WAS USED BETWEEN EVERY A.C. COURSE	TON	$4,000.00	$9,352.00	+134%
23	4-inch PVC REPLACED ALL OLD PIPES UNDER PAVEMENT	LIN.FT.	$2,700.00	$11,180.00	+314%

STATEMENT OF OVERRUNS AND UNDERRUNS (CON'T)

ITEM NO.	ITEM	UNIT	ORGINIAL	SEMI-FINAL	± %
24	8-INCH PVC ITEM NOT USED	LIN.FT.	$4,000.00	$0.00	-100%
25	6-INCH STEEL ITEM NOT USED (SEE PA. NO. 12)	LIN.FT.	$880.00	$0.00	-100%
26	12-INCH CULVERT APPROACH PIPES NOT USED (SEE PA. NO. 3)	LIN.FT.	$7,440.00	$5,184.00	-30%
27	18-INCH CULVER REVISIONS TO ITEM	LIN. FT.	$4,250.00	$1,530.00	-64%
28	24-INCH CULVERT ITEM NOT USED	LIN.FT.	$3,500.00	$0.00	-100%
29	12-INCH SIPHON REVISIONS TO ITEM	LIN.FT.	$5,000.00	$3,300.00	-34%
30	12-INCH IRRIGATION REVISIONS TO ITEM	LIN.FT.	$7,250.00	$9,475.00	+31%
31	18-INCH IRRIGATION REVISIONS TO ITEM	LIN.FT.	$6,400.00	$4,640.00	-28%
32	24-INCH IRRIGATION REVISIONS TO ITEM	LIN.FT.	$2,760.00	$8,027.00	+191%
34	EXTRA FOR PIPE UNDER PAVEMENT REVISIONS TO ITEM	LIN.FT.	$1,920.00	$3,840.00	+100%
35	BEDDING MATERIAL EXCAVATION IN SOLID ROCK REQUIRED MORE ITEM	CU.YD.	$900.00	$5,760.00	+540%
36	CONCRETE MANHOLES		$24,000.00	$21,600.00	-10%
38	CONCRETE INLET TYPE "3" REVISIONS TO ITEM	EACH	$2,500.00	$2,000.00	-20%
39	CONCRETE INLET TYPE G-1 REVISIONS TO ITEM	EACH	$800.00	$1,600.00	+100%
40	CONCRETE INLET TYPE CG-1 ITEM NOT USED	EACH	$2,750.00	$0.00	-100%
42	GRANULAR BACKFILL REVISIONS IN RELATED ITEMS	CU.YD.	$425.00	$276.00	-35%
45	6-INCH PVC REVISIONS IN ITEM	LIN.FT.	$850.00	$1,120.00	+32%
46	CONCRETE SIPHON BOXES ELIMINATED THE NEED FOR FIVE (BOUGHT WATER RIGHTS)	EACH	$17,500.00	$5,000.00	-71%
47	DIVERSION BOX REVISION TO ITEM	EACH	$6,000.00	$10,000.00	+67%

STATEMENT OF OVERRUNS AND UNDERRUNS (CON"T)

ITEM NO.	ITEM	UNIT	ORGINIAL	SEMI-FINAL	±%
48	6-INCH DRAIN PIPE ITEM NOT USED	LIN.FT.	$1,600.00	$0.00	-100%
49	SPECIAL FILTER MATERIAL ITEM NOT USED	CU.YD.	$300.00	$0.00	-100%
58	CONCRETE DRIVEWAYS LOW ORGINIAL ESTIMATE	SQ.YD.	$10,585.00	$31,416.72	+197%
59	CONCRETE CURBS MORE OF ITEM NEEDED	LIN.FT.	$31,440.00	$38,841.60	+24%
60	CONCRETE ISLANDS LOW ORGINIAL ESTIMATE	CU.YD.	$3,900.00	$5,481.00	+41%
61	EXTRA FOR ASPHALT APPROACHS LOW ORGINIAL ESTIMATE	EACH	$25,000.00	$21,800.00	+13%
62	EXTRA FOR ASPHALT WALKS	EACH	$250.00	$115.00	-54%
63	ADJUSTING BOXES	EACH	$100.00	$0.00	-100%
65	8-INCH DRAIN WELL BELOW 100ft. USED ALL ITEM NEEDED, HIGH ORGINAL ESTIMATE	LIN.FT.	$6,000.00	$3,800.00	-36%
66	8-INCH WELL CASING USED ALL OF ITEM NEEDED HIGH ORGINIAL ITEM	LIN.FT.	$8,500.00	$1,240.00	-85%
67	SETTING MAIL BOX POSTS ELIMINATED PART OF ITEM	EACH	$3,800.00	$2,600.00	-32%
71	TYPE"EE"SIGNS HIGH ORGINIAL ESTIMATE	SQ.FT.	$560.00	$414.40	-26%
72	TYPE "EEE"SIGNS IN PLACE ORGINIAL ESTIMATE HIGH	SQ.FT.	$90.00	$75.00	-17%
74	TYPE "U" SIGNS IN PLACE	SQ.FT.	$3,000.00	$2,456.00	-18%
A#1	ON THE JOB TRAINING	HOUR	$1,600.00	$347.20	-78%
A # 2	CHANGE SPECIFICATION	(DOCUMENTATION)			
A # 3	12-INCH STORM SEWER	LIN FT.	$12,500.00	$7,800.00	-38%
	SPECIAL GRATES	EACH	$843.01	$481.72	-43%
	3"PVC	LIN.FT.	$5,168.00	$7,752.00	+50%
	6" FLEX PIPE	LIN.FT.	$3,310.00	$3,310.00	00%
	2" GALVANIZED PIPE	LIN.FT.	$2,375.00	$2,166.00	-09%
A # 4	REMOVE AND REPLACE CURB	LIN.FT.	$239.80	$392.40	+64%
A # 5	4' FENCE	LIN.FT.	$774.20	$1,415.68	+83%
	CONC. WALL	LIN.FT.	$3,190.43	$8,392.34	+163%
	REINFORCING	LBS.	$350.00	$941.45	+169%
A # 6	TRAFFIC LOOP CHANGE	LUMP SUM	$877.80	$877.80	0%

STATEMENT OF OVERRUNS AND UNDERRUNS (CON'T)

PA # 7	SERVICE CHANGE	LUMP SUM	$291.50	$291.50	0%
PA # 8	REVISE MANHOLE	EACH	$2,933.14	$2,933.14	0%
PA # 9	SLOPE PAVING	SQ.YD.	$8,000.00	$7,724.00	-3%
PA # 10	SIGN POSTS	EACH	$3,900.16	$3,900.16	0%
	SIGNS	SQ.FT.	$1,078.00	$1,078.00	0%
PA #11	STOP BLOCKS	EACH	$240.00	$240.00	0%
PA # 12	4-INCH VALVE	EACH	$305.43	$305.43	0%
	ADJUST DRIVEWAY		$299.20	$299.20	0%
	CONNECT PIPE		$118.80	$188.80	0%
	IRRIGATION SYSTEM		$887.09	$887.09	0%
	TRAFFIC LOOPS (STANDBY TIME)		$35.00	$35.00	0%
PA # 13	ADJUSTMENT NON-SPEC PMBB		$1,084.20	$1,084.20	0%
	ADJUSTMENT NON-SPEC ASPHALT		$285.00	$285.00	0%
	ADJUSTMENT NON-SPEC MEMBRANE		$777.14	$777.14	0%

8950

FORM 734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: BEND S.C.L. - MURPHY RD.		WEEK ENDING: APRIL 11, 1981
		SECTION PREFIX: 9-1014
HIGHWAY: The Dalles - California		COUNTY: Deschutes
NAME OF JOB: BEND S.C.L. - MURPHY ROAD	KIND OF WORK: Grading Paving, Signing Signals	
CONTRACTOR: R. L. Coats	CONTRACT NUMBER: 8950	FEDERAL AID PROJECT NUMBER: F-4-2(6)
DATE OF CONTRACT: May 31, 1979	DATE WORK STARTED: June 12, 1979	ESTIMATED COMPLETION DATE: Aug 25, 1980
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS: 440	WORK DAYS USED: 536
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 122
PROJECT AUTHORIZATION: $1,816,306.31	ENGINEERING AUTHORIZATION: $129,159.56	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $1,687,146.75	ENGINEERING COST TO DATE: $126,000.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $1,783,495.87		DATE PROJECT WAS COMPLETED: FEBRUARY 25, 1981
ESTIMATED PERCENT: OVERRUN/UNDERRUN .02 %	PERCENT OF AUTHORIZATION 98 %	

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.	PMBB	
			GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT			2.15	2.15		2.15	2.15
MILES PARTIALLY COMPLETED							
MILES COMPLETED							
TOTAL ESTIMATED QUANTITIES (CONTRACT)			24,100 CuYd	18,600 Ton		13,300 Ton	17,000 Ton
TOTAL QUANTITIES CORRECTED TO DATE			13,350 CuYd	19,700 Ton		13,011 Ton	17,200 Ton
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE			13,350 CuYd	19,700 Ton		13,011 Ton	17,200 Ton
AVERAGE DAILY QUANTITIES			0 CuYd	0 Ton		0 Ton	0 Ton
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME			0 CuYd	0 Ton		0 Ton	0 Ton
NUMBER OF SHIFTS PER DAY			0	0		0	0
HOURS PER SHIFT			0	0		0	0

EQUIPMENT USED DURING THE WEEK:

NONE

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 5	CLOUDY/WINDY			
MONDAY 6	CLOUDY			
TUESDAY 7	CLEARING			
WEDNESDAY 8	CLOUDY			
THURSDAY 9	CLOUDY			
FRIDAY 10	CLEARING			
SATURDAY 11				

RECEIVED
APR 13 1981
CONSTRUCTION BRANCH

Keasey, Jackmond, Hopkins, Williams, Johnson, Glass, Richards, Berg, Inloes, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

SEMI-FINAL SUBMITTED TO REGION OFFICE 4/8/81

FINAL WEEKLY REPORT

SIGNED W. W. Robertson LOCATION Bend.

by Tom Eggum

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BIDS ARE INVOLVED SUBMIT 3 COPIES

VICTOR ATIYEH
GOVERNOR

Department of Transportation

HIGHWAY DIVISION
REGION 4
P.O. BOX 5309, BEND, OREGON 97701

January 26, 1981

In reply refer to File No.

Bend SCL, Murphy Road
Contract No. 8950

R. L. Coats
Coats Construction
P.O.Box 1008
Bend, OR 97701

Dear Bob:

Please refer to Hamilton Electric letter of January 22, 1981, and Signal and Control Systems letter of January 15, 1981.

In the first paragraph of the letter from Signal and Control Systems, they state that they were informed by the State Highway Division that they wished to change the fire pre-emption sequence in the controllers on this project. I have talked with Wil Robertson and the people in our Traffic Section in Salem, and I can find no one who told anyone that we wanted to make a change in the fire pre-emption sequence on this contract.

The signals on this project were turned on September 9, 1980 at Brosterhaus Road, and September 22, 1980 at Murphy Road, and since that time the fire pre-emption equipment has not been functional. We are charging liquidated damages on this project because of this item and will continue to do so until the fire pre-emption equipment operates as required by the contract.

Please contact your sub-contractor and supplier and encourage them to complete this work at the earliest possible date.

Yours very truly,

Robert C. Pool
Region Construction Engineer

RCP:pw

cc: Traffic Section
Hamilton Electric
W. Robertson

STATE OF OREGON

INTEROFFICE MEMO

TO: R. C. Pool
Region Construction-Maintenance Engineer

DATE: January 22, 1981

FROM: L. E. George
Traffic Engineer

SUBJECT: Traffic Signal Pre-Emption
SCL-Murphy Road (Bend
Contract No. 8950

On Mr. D. Naf's letter to Hamilton Electric, dated January 15, 1981, you requested clarification on two questions. These are answered below:

1. At our meeting with the suppliers, we indicated that there were two possibilities:

   a. If the work day count could be stopped, we would prefer that the new pre-emption sequence be implemented.

   b. If the work day count could not be stopped, we would accept the original pre-emption sequence that had been corrected.

2. State Forces are not able to make the software modifications. The changes would be done at some later date utilizing the services of the same software supplier. This, of course, will result in a higher cost.

This office notified Mr. D. Naf by phone today of our desires to go ahead with corrected software for the original pre-emption sequence. He was also told that the work day count continues.

Kubel Enterprises, Incorporated, of Sacramento, California, indicated, by phone on January 22, 1981, that the software program change for the original pre-emption sequence would be in operation by March 1, 1981.

ORIGINAL SIGNED BY L. E. GEORGE

L. E. George
Traffic Engineer

HZ:er

CC: R. T. Judson
C. T. Keasey

RECEIVED
JAN 27 1981
CONSTRUCTION BRANCH

Contains recycled materials

Signals & Control Systems, Inc.

4580 150 AVE. N.E.
REDMOND, WASHINGTON 98052 • (206) 885-7443

January 15, 1981

Hamilton Electric
P.O. Box 708
Eugene, Oregon 97440

Attention: Emerson Hamilton.

Re: Bend SCL-Murphy Road, O.S.H.D. #8950

Dear Mr. Hamilton;

The Fire Preemption in the controllers for this project is not functional because of a error in the software programs. This error causes the controller to lock up in the fire prempt mode. Shortly after discovering this problem, we were informed by the State Highway Division that they wished to change the Fire Preemption sequence in these controllers and in controllers on other projects.

To include a pedestrian clearance interval after receit of a preempt. We felt that it would be in the best interests of the Highway Department to make this change at the same time that we corrected our other problem. This would climinate the need for expensive program modifications in the future.

We received a change order from the Highway Department to add this Pedestrian Clearance to a project on Pacific Highway West in Tigard and agreed to incorporate this modification in to the Bend Controllers after the Tigard Revision was approved. At about this same time we received notification that working days were not being charged and we proceeded with this course of action. We recently completed our revisions to the Tigard software and it has been accepted by the Testing Lab. Immediatly after this acceptance we proceeded to revise the software for this job in Bend. We will have the software revisions to the Testing Lab by February 16, 1981 and installed in the controllers by March 1, 1981.

The first week of December we received a copy of a letter from the Highway Department to R. L. Coats Construction Co. stating that working days would start counting again on November 24, 1980 because the Fire Preemption was still not functional, hence the highway users and residents of Bend are receiving no benefit from the system. I would like to point out that the preemption is the only part of the system not working, the rest of the Signal System is operating correctly.

Signals & Control Systems, Inc.
4580 150 AVE. N.E.
REDMOND, WASHINGTON 98052 • (206) 885-7443

The software revisions required to fix our original error are minor and could have been accomplished within two weeks, however the State would then have a dangerous preemption operation because there would be no Pedestrian Clearance interval. The addition of this Pedestrian Clearance interval is a time consuming process.

We do not feel that the State is justified in charging us for working days and request that the decision to resume the day count be reconsidered, because of the additional value provided to the State in the revised programs.

Should the State decide not to reconsider their resumption of the working day count, please notify us immediatly. We will then proceed to fix only our original problem and not implement the Pedestrian Clearance Timing.

Sincerely,
Signals & Control Systems, Inc.

David E. Na
Sec./Treas.

cc: Monte McKeehen
W. W. Robertson

8450 5493

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

RECEIVED
NOV 21 1980
NORMA PAULUS
SECRETARY OF STATE

November 20, 1980

IN REPLY REFER TO
FILE NO.:
CON 5
#8950

Joseph, Gudger and McKeehen
Attorneys at Law
59 East 11th Avenue, Suite A
Eugene, OR 97401

Attention: Monte C. McKeehen

FILED
NOV 21 1980
NORMA PAULUS
SECRETARY OF STATE

Gentlemen:

This will acknowledge receipt of your letter of November 10 with attached Claim on behalf of Signals and Control Systems, Inc., indicating that Hamilton Electric, subcontractor, owes them for traffic signal equipment and labor in the amount of $16,402.71.

The claim states this is in reference to the R. L. Coats Contract No. 8950 for work on the Bend South City Limits-Murphy Road Section of The Dalles-California Highway in Deschutes County.

Safeco Insurance Company of America furnished the bond on this contract. We will advise the surety and the prime contractor of the receipt of this claim and we will also forward it to the Secretary of State for filing.

Please notify this office when payment has been received.

RECEIVED
NOV 25 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

Sincerely,

Robert W. Gormsen
COMMISSION SERVICES

NOTED ON CARD
11-26-80 dmc

RWG:dmc
cc: R. L. Coats
63285 Skyline Ranch Rd.
Bend, OR 97701

Safeco Insurance Company of America
1500 S.W. First Avenue
Portland, OR 97201

bc: Secretary of State - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

JOSEPH, GUDGER, McKEEHEN & JAMES
ATTORNEYS AT LAW
59 EAST 11TH AVENUE, SUITE A
EUGENE, OREGON 97401
AREA CODE 503 - 686-2244

COTTAGE GROVE OFFICE
942-7311

JON A. JOSEPH
CHARLES M. GUDGER, III
MONTE C. McKEEHEN
DAVID W. JAMES, JR.

REPLY TO EUGENE OFFICE

November 10, 1980

Clerk
Department of Transportation
Oregon State Highway Division
Transportation Building
Salem, OR 997310

Re: Filing Notice of Claim on Bond pursuant
to ORS 279.528
Signals & Control Systems, Inc., Claimant;
R. L. Coats, General Contractor;
Oregon State Highway Division, Public Body Letting
Contract; -- Contract No. No. 8950

Dear Sir:

Enclosed is a true copy of the lien we are filing in the above entitled matter.

Very truly yours,

JOSEPH, GUDGER & McKEEHEN

Monte C. McKeehen

MCM:db
Enclosure

RECEIVED
NOV 1 2 1980
DOT ... AGES
... ATION

CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION, by and through the Oregon State Highway Division:

NOTICE IS HEREBY GIVEN that the undersigned, SIGNALS & CONTROL SYSTEMS, INC., a Washington corporation, has a claim for certain traffic signal equipment and related labor involved in the installation thereof, as set forth on Exhibit "A" to this claim, said exhibit being attached hereto and incorporated herein as though fully set forth, and the person by whom said equipment was furnished was Signals & Control Systems, Inc., by and through its officers and employees, and the persons performing said labor to assist in the installation was Signals & Control Systems, Inc. by and through its officers and employees, Gordon O. Dale and/or David Edwin Naf; said claim being in the sum of $16,402.71 against the bond taken from R. L. Coats, 63285 Skyline Ranch Road, Bend, OR 97701 and the surety thereon being Safeco Insurance Company of America, by way of performance bond dated June 7, 1979, for the furnishing of the equipment set forth on Exhibit "A" and related labor to assist in installation on the Bend South City Limits, Murrhy Road, Deschutes County, City of Bend, Oregon and in reference to Oregon State Highway job No. 8950. Said equipment and labor was provided by claimant to Hamilton Electric, 232 West 5th Avenue, P. O. Box 708, Eugene, Oregon 97440, who was a subcontractor of R. L. Coats.

This notice is being filed with the Secretary of State's office or the Clerk or Auditor of the Oregon Department of Transportation, by and through the Oregon State Highway Division, according to and in conformance with ORS 279.528.

DATED this 7th day of November, 1980.

SIGNALS & CONTROL SYSTEMS, INC.

By _____

Title: Sec. Treas.

RECEIVED
NOV 12 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

CERTIFIED TRUE COPY
By _____

EXHIBIT "A" TO
CLAIM ON BOND OREGON STATE
HIGHWAY - DEPARTMENT OF
TRANSPORTATION JOB #8950

Signals & Control Systems, Inc. equipment furnished, together with labor for installation re: Invoice 0420-2 - invoice dated October 13, 1980:

RETAINAGE WITHHELD FROM PAYMENT ON 5/8/80 $16,402.71

RECEIVED
NOV 1 8 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

2950 50075

STATE OF OREGON

INTEROFFICE MEMO 4

TO: J. B. Boyd
Right of Way Engineer

DATE: August ~~18~~ 27, 1980

FROM: J. H. Versteeg
Road Design Engineer

SUBJECT: File No. 50775
Bend SCL-Murphy Road
The Dalles-California Highway
Deschutes County

1 Versteeg ✓
Anderson
2 Christensen
3 Olson
Sullivan
4 Terpin
Trout
5 Wakerlig

RECEIVED
AUG 27 1980
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up / /
Action

NOTED
ROBERT R. ROUNDS

Recently we received a request to release a permanent easement on the subject file. Apparently the adjacent owner has filled the property to highway grade and the easement is no longer needed.

In checking the file we find that we paid some $3,000 for the permanent easement. It is our understanding that a permanent easement or a fee taking cost about the same. If we had taken this property in fee we could realize a return on our money by sale to the adjacent owner. As a release of a permanent easement we are sure we will realize no return on our money.

In the future, we would recommend that in most cases we take fee rather than permanent easements.

Hal
Easement & Fee
do not cost the
same — Fee would
cost $3000 — I think
such is to be judged on
to our merits — do they
what we
request
JB 8/27/80

DNS:ab
cc: R. S. Hunter

RIGHT OF WAY ADMINISTRATION
RECEIVED
AUG 18 1980
M AM ADM HBR CA RS
FMS AS CE OS TA RUE
0 1 2 3 4 F

CC: Hunter

REFERRED TO
Board 2 Stoudenmeyer
Cole Mann
Eriksen 1 Watson
Heger Dorn Lou
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

Contains Recycled Materials
81-125-1367

SP°78683-125

8950

L.

VICTOR ATIYEH
GOVERNOR

Department of Transportation

HIGHWAY DIVISION
REGION 4
P.O. BOX 5309, BEND, OREGON 97701

July 25, 1980

In Reply Refer to File No.:

50166
Eldon L. Wood

Bodie, Minturn, Van Voorhees,
Larson and Dixon
Attorneys At Law
203 N. Main, PO Box 623
Prineville, OR 97754

H.S. Coulter

Attn: James B. Minturn

Dear Sir:

In reply to your letter to the Department of Transportation, dated May 16, 1980, I can now report that on July 7th, the south approach to Borden's Kar Kare was re-paved, and additional rock was placed on the slope going to the property line. To date this rock is not finished, but will be soon.

I am working with Micky Borden on this matter and plan on building this approach to his satisfaction.

Yours very truly,

W. W. Robertson

W. W. Robertson
Resident Engineer

WWR:pw

cc: Region
H.S.Coulter ✓

RECEIVED
STATE HWY ENGR
JUL 28 '80
REFER TO
FOR
Info | Invest | R/D | D/R | Sgn | Act | File

734-1327

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

#8950 LETTER OF APPROVAL AND/OR AUTHORIZATION 7-1-80

FEDERAL AID PROJECT NO.
F-4-2(6)

STATE PROJECT NO.
See below

FROM:
G. L. Green, Division Administrator
FHWA - Oregon Division

PROGRAM NO.

ITEM NO.
90083

COUNTY NAME
Deschutes

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
JUL - 7 '80
REFER TO
FOR
Info | Inves | R/D | D/R | Spec | Act | File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5/2/79	6/5/80	Primary 4	Primary 4

GENERAL LOCATION:
Bend S.C.L. - Murphy Road

GENERAL DESCRIPTION OF WORK:
Furnish No Parking Signs

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
- ☐ OTHER (Specify)
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
- ☒ CONSTRUCTION - PROCEED ON FORCE ACCOUNT BASIS

REMARKS

This will confirm the advance authorization date of 6/5/80, as requested in Mr. Keasey's letter of 6/18/80 as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 6 is approved for TEC NTE $440 Federal funds $388.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
7/1/80	G. K. Hansen	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1978—831-488

99.50 5-16-80

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: F-4-2(6)

STATE PROJECT NO.: see below

FROM: G. L. Green, Division Administrator
FHWA - Oregon Division

PROGRAM NO.:

ITEM NO.: 90083

COUNTY NAME: Deschutes

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
MAY 22 '80
REFER TO
FOR
Info | Review | Pay | Dist | Spec | Act | File

5/22 orig Woebrenig

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	5/16/80	Primary 4	Primary 4

GENERAL LOCATION:

Bend SCL-Murphy Road Section

GENERAL DESCRIPTION OF WORK:

Program Change

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☒ OTHER (Specify) Program Change

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of 5/1/80 I approve the program change extending the northerly limits of the project 0.41 and adding to the character of work updating traffic signal controller at Wilson Avenue.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5/16/80	G. K. Hansen	for Division Administrator

FHWA PR-1240 EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

8950

L.

JAMES F. BODIE
JAMES B. MINTURN
JAMES C. VAN VOORHEES
JAMES F. LARSON
STEPHEN D. DIXON

BODIE, MINTURN, VAN VOORHEES,
LARSON & DIXON
ATTORNEYS AT LAW
203 N. MAIN - P.O. BOX 623
PRINEVILLE, OREGON
97754

PHONE 447-4146
AREA CODE 503

RODNEY R. GLANTZ
(1938-1971)

May 16, 1980

Dept. of Transportation
Highway Division
Transportation Building
Salem, OR 97310

Re: 50166
Eldon L. Wood

Gentlemen:

Last year you purchased some right of way from Dr. Wood for highway improvement purposes to The Dalles-California Highway, Deschutes County, lying just South of Bend. It looks like most of the imporvement work has been done. There is a problem with the approach to Dr. Wood's property which is presently occupied by Borden's Kar Kare.

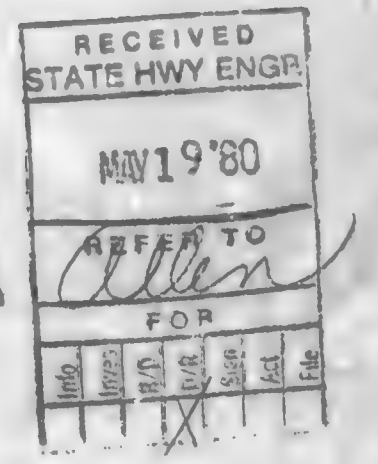
We were wondering if some additional work is going to be done by the highway department on that part of the approach lying on highway department right of way.

We would appreciate receiving any information you may have on this. Thank you for your help.

Sincerely,

James B. Minturn

JBM:js



8950 5-1-80 L

9

CON MCE LRW 2 5-1-80 4-30PM

CONSTRUCTION
MAINTENANCE
H S COULTER

THISP.M. THE PROJECT SOUTH OF BEND WAS STRIPED AND OPXNEXXX OPENED TO FIVE LANES. ALL MAIN LINE PAVING IS COMPLETED. IN ADDITION, THE FIVE LANE SECTION WAS EXTENDED BACK TO THE THIRD STREET UNDERPASS AS PER AN AGREEMENT WITH THE CITY IN 1977.

DALE D ALLEN
W

8950

STATE COPY

OSHD (H S Coulter)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINSTRATION

INITIAL REPORT

3-6-80

RECEIVED
STATE HWY ENGR
MAR 13 '80
REFER TO
Keasey
FOR

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	1	Deschutes	Oregon

DATE OF INSPECTION	INSPECTION MADE BY	PROJECT NO.
3-6-80	David B. Carter, Area Engineer (Original Signed by D. B. Carter Area Engr)	F-4-2(6)

IN COMPANY WITH
W. Robertson, Resident Engineer, OSHD

3/13

LOCATION
Beginning south city limits of Bend and extending approximately 2.05 miles southerly on U.S. 97, Deschutes County, Oregon

CONTRACTOR NAME AND ADDRESS
R. L. Coats, 63285 Skyline Ranch Road, Bend, Oregon 97701

AWARD DATE	CONTRACT AMOUNT	TIME ALLOWED	TIME STARTED	WORK STARTED
5-31-79	$1,492,594.50	a) 200 cal. days b) 440 cal. days	June 13, 1979	June 12, 1979

QUALITY OF WORK	PROGRESS OF WORK	TIME ELAPSED	WORK COMPLETED
Satisfactory	Satisfactory	61	47

REMARKS

BEND S.C.L.-MURPHY ROAD SECTION
The Dalles-California Highway
Grade, pave, sign & signals

This project provides for the widening of the above section of The Dalles-California Highway. Also included are traffic signals - Reed Market Road, Brasterhouse Road and Murphy Road.

Work Completed
The widening work including curbs and access work is essentially completed. The signal at Reed Market Road has been installed but not in operation. The signal can be placed in service pending receipt and installation of the controller.

Work in Progress
The contractor is beginning to do fine grading in preparation for the paving work. Paving will start as soon as weather permits.

Comments
Traffic handling provisions through the project were reviewed and found to be satisfactory.

The contract provided for two "contract times" with 200 calendar days for the first unit and 440 calendar days for the completion of the contract. The first unit included all work required to complete the projects between its begging and Station 115+00, except the asphalt wearing course. The signal at Reed Market Road is located within this unit.

8/20

February 19, 1980

COM 4

Deschutes Rural Fire
Protection District No. 2
1644 N.E. Bend Street
Bend, Oregon 97701

Attn: c/o Mr. Al Gray
Gray, Farnham, Holmes & Morley

Gentlemen:

On May 31, 1979 a contract was awarded for construction on the Bend South City Limits-Murphy Road Section of the Dalles-California Highway. As a part of the project, the State plans to install emergency pre-emption devices on traffic signals at intersections with Reed Market Road (Hilton Avenue), Eastchester Road (Hayes Avenue) and Murphy Road (Golf Course Road).

The State and Deschutes Rural Fire Protection District No. 2 shall each pay 50 percent of the difference between the actual total cost of the pre-emption system which is physically part of the traffic signal installation and the amount contributed by the Federal Highway Administration.

Fire Pre-Emption Installation	$11,332.00
Fire Pre-Emption Testing	$ 54.00
4 1/2% Contingencies	492.37
8% Engineering	1,[illegible]
ESTIMATED TOTAL COST	$13,[illegible]
Less 90% FHWA Participation	-12,[illegible]
COST	$ 1,337.11

District's Advance Payment:
50% of $1,337.11 = $668.55 or say $700.00.

Please make your check for $700.00 payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

ORIGINAL SIGNED BY
D. E. SWAN

D. E. Swan
Operation Programming Engineer

FTH:mf

bcc w/AD # 729: John Hogedorn, Region 4 Federal Aid Engineer
Norm Stang - Please return completed AD # 729 when check is received.

#8750

Form FHWA 121 (6/79)

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

THE OREGON DIVISION - SALEM
UNITED STATES GOVERNMENT

memorandum

Subject: Oregon Project F-4-2(5)
Bend So. City Limits - Murphy Road
Deschutes County - File 50034

Date: February 4, 1980

From: G. L. Green, Division Administrator

Reply to Attn. of: HRW.1-OR/415.1

To: Mr. H. S. Coulter, State Highway Engineer

By letter dated August 27, 1979, we informed you that $5,057 expended for the removal of personal property from the portion of file 50034 acquired for right of way was not eligible for Federal-aid participation. Based on the additional receipts for items of cost submitted with Mr. Boyd's letter dated November 20, 1979, only $2,559 remains as ineligible. The $2,559 is the amount paid to the owner for the charges he submitted for his own services based on rates rather than actual documented costs.

This letter, along with the conditions and documentation submitted by Mr. Boyd's letters of November 20, 1979 and January 31, 1980, resolves all the items which were discussed in our report on relation assistance which was transmitted to you by our letter dated September 18, 1979.

G. L. Green

cc:
OSHD (E S Hunter)
(J B Boyd)
(V Wilson)
(F Lowe)

RECEIVED
STATE HWY ENG'R
FEB 6'80
REFER TO
FOR
Info | Issues | R/D | Dsn | Sem | Att | File

8250 12-16-79

U. S. DEPARTMENT OF TRANSPORTATION — FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. F-4-2(6)

STATE PROJECT NO. See below

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 90083

COUNTY NAME Deschutes

PROGRAM STAGE (Check)

RECEIVED
STATE HWY ENGR
DEC 12'79
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

12-12

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	12-10-79	Primary 4	Primary 4

GENERAL LOCATION:
Bend South City Limits - Murphy Road Section

GENERAL DESCRIPTION OF WORK:
Revise Actual Cost Estimate of Utility Work

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- PRELIMINARY ENGINEERING TO DETERMINE
  - ☐ LOCATION ONLY
  - PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
  - ☐ PREPARATION
- ☐ ACQUISITION OF RIGHT-OF-WAY
- CONSTRUCTION - ADVERTISE FOR RECEIPT
  - ☐ OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS
- ☑ OTHER (Specify) See below
  (PP&L Relocation Johnson's Electric Bldg.)

REMARKS

As requested in Mr. Swan's letter of November 19, 1979, and with documentation submitted, I approve the revised actual cost estimate to $2,555.13 with Federal participation limited to $2,252.00.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
12-10-79		for Division Administrator

FR-1240 (REV. 3-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978—721-015

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

November 19, 1979

Mr. Glen L. Green
Division Administrator
Federal Highway Administration
530 Center St. NE, Suite 100
Salem, OR 97301

Cost Overrun
Electric Service Relocation For
Johnson Electric's Building
Bend South City Limits-Murphy Rd. Sec.
The Dalles-California Highway
Deschutes County
Project No. F-4-2(6)

Dear Mr. Green:

Reference is made to my letter of October 4, 1979, which submitted an estimate of cost from Pacific Power and Light Company for the relocation of an electric Service to Johnson Electric's Building on the subject project. Reference is also made to your PR-1240 dated October 15, 1979, which approved the relocation work by Pacific Power and Light Company.

The estimated cost for the relocation work as submitted by my letter of October 4, 1979, was $752. The State is obligated to reimbuse PP & L for 100% of the relocation cost. The relocation of the electric service has been completed. Final cost of the relocation work is $2,555.13. This is an overrun of $1,803.13 or 240% of the approved estimated cost. Pacific Power and Light Company has provided an explanation of the cost overrun in their letter of October 30, 1979, a copy of which is attached. The State concurs with their explanation. Attached, for your information, is my original letter of October 4, 1979 and your PR-1240 dated October 15, 1979.

Your approval for Federal Participation in the total relocation cost of $2,555.13 is requested. The cost overrun will be covered by Order for Force Work No. 1, Supplement No. 1.

Yours truly,

D. E. Swan
Operations Programming Engineer

RECEIVED
TECHNICAL SERVICES
NOV 20 '79
REFER TO
FOR

JMC:nm

bc: E. S. Hunter, Jack M. Cartwright, Rich Evans, R. O. Havig

Form 81-734-3123 (Rev. 7-77)

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. F-4-2(6)

STATE PROJECT NO. See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 90083

COUNTY NAME Deschutes

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

RECEIVED
STATE HWY ENGR
OCT 18 '79
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	8-22-79	Primary 4	Primary 4

GENERAL LOCATION:

Bend South City Limits - Murphy Road Section

GENERAL DESCRIPTION OF WORK:

Utility Adjustment

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
- ☒ OTHER (Specify) Utility Adjustment Pacific Power & Light Co.
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of October 4, 1979, this will confirm the advance authorization date of August 22, 1979 to proceed with the actual adjustments of electric service by Pacific Power and Light Company. Reimbursement on an actual cost basis estimated to be $752.00 is approved. I approve the agreement with PP&L.

Approval and participation for the eligible portion of the work authorized above is subject to the provisions of the Federal-Aid Program Manual.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
10-15-79	G. K. Hovenden	for Division Administration

EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978—721-018

Oregon State Highway Division

TRANSPORTATION BUILDING, SALEM, OREGON 97310

NOTED
E. S. HUNTER

ROW 18-4

October 4, 1979

Mr. Glen L. Green
Division Administrator
Federal Highway Administration
530 Center St. NE, Suite 100
Salem, OR 97301

Electric Service Relocation
Pacific Power and Light Company
For Johnson Electric Building
Bend SCL-Murphy Rd. Section
The Dalles-California Highway
Deschutes County
Project No. F-4-2(6)

Dear Mr. Green:

Here is a copy of an estimate of cost for Pacific Power and Light Company to adjust the electric service to the Johnson Electric's building facilities dated August 14, 1979.

A certification prepared by Richard O. Havig as to the property owner's rights in the land occupied by the electric service is in our files.

The conflict was not originally anticipated. Pacific Power and Light Company was advised verbally of the need to relocate the service as soon as it was known. The relocation agreement will, therefore, consist of verbal notification of conflict, the estimate and sketch submitted herewith and our letter authorizing them to proceed with the work.

An appropriate permit for the utility's proposed relocation will not be issued as the service occupies private property.

The State is not entitled to a credit for expired service life under the provisions of Paragraph 9b (1) (b) of PPM 30-4, as the relocation involves one crossing of the project by the facilities.

There will be no betterment derived from the proposed adjustment of the electric service.

RECEIVED TECHNICAL SERVICES
OCT 4 '79
REFER TO
FOR
File
Add
Sign
D/R
R/D
Invest
Info

Your approval of the actual cost agreement, as evidenced above, and confirmation of your advanced authorization to proceed with the work as of August 22, 1979 under the provisions of PPM 30-4 and 30-4.1 is requested. Estimated cost to the State is $752.00.

Yours truly,

D. E. Swan
Operation Programming Engineer

JMC:mm

Enclosures

cc: E. S. Hunter
Jack M. Cartwright
R. O. Havig

#1950

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Oregon Division - Salem

SUBJECT: F-4-2(5)
Bend South City Limits - Murphy Road
Deschutes County
File 50034

DATE: August 27, 1979

In reply refer to: HRW.1-OR

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer

We have reviewed your relocation moving expense records for the removal of personal property from the portion of file 50034 acquired for right of way. Based on your records we found that only $3,540 of the $8,567 expended is eligible for Federal-aid participation for the following reasons:

1. The self move was not based on the lower of two acceptable bids or qualified estimates as required. Considering the type of items moved and the lack of any evidence to the contrary, we assume bids could have been obtained.

2. If bids or estimates could not be obtained then the payment should have been based on receipted bills or other supported evidence of expenses incurred as required by sections 6.125 and 6.135 of your Right of Way Manual.

Even though the move was not accomplished in accordance with the prescribed procedures, we will participate in the $3,540 since your records contain receipted bills supporting the $3,540. Please place the remaining $5,027 in a non-participating status.

It was noted that the claim forms submitted by the displacee indicated that in addition to the $3,540, $800 more was also performed by third parties; however, no receipts were found in your files. If receipts do exist to support the $800 we will be able to participate in it also.

G. L. Green

cc:
OSHD (E S Hunter)
OSHD (J B Boyd)
OSHD (V Wilson)
OSHD (F Love)

RECEIVED
STATE HWY ENGR
AUG 29 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

cy skoog

#8150

U. S. DEPARTMENT OF TRANSPORTATION — FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: U-RF-108(11)

STATE PROJECT NO.: See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.:

ITEM NO.: RF-74 & U-210

COUNTY NAME: Deschutes

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
JUL 24 '79
REFER TO
FOR
Info | Inves | R/D | R/R | Sign | Act | File

DATE PS&E APPROVED:

DATE AUTHORIZATION EFFECTIVE: 7-23-79

FEDERAL ROUTE NUMBER: Primary 4

STATE ROUTE NUMBER: Primary 4

GENERAL LOCATION:
SCL Bend - Golf Course Road

GENERAL DESCRIPTION OF WORK:
Program Change

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☒ OTHER (Specify) See below

☐ ACQUISITION OF RIGHT-OF-WAY

CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of July 16, 1979 I approve the revised Preliminary Engineering costs to a TEC of $210,000 with Federal participation limited to $159,115.

(Increase TEC $25,000 - FF $14,465)

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
7-23-79	G K. Hansen	for Division Administrator

FHWA 1240 (Rev. 6-79) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1979—721-918

8950

State Copy

OMB No. 04-R2089

TO BE COMPLETED BY FHWA MONTHLY TRANSACTION NO.	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State Oregon
6-161	**FEDERAL-AID PROJECT AGREEMENT** 6-18-79	County Deschutes
		Project No. F-4-2(5)

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

US 97, Bend SCL, S.2.04 mi.

PROJECT CLASSIFICATION OR PHASE OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING AND RESEARCH (HP & R)		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	5-2-79	2.048
OTHER *(Specify)*		

ESTIMATED TOTAL COST OF PROJECT	FUNDS FED Pro Rata 88.12%
$ 1,741,221.00	$ 1,534,[illegible].00

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By H. S. Coulter

Assistant State Highway Engineer
(Title)

By For: H. S. Coulter

State Highway Engineer
(Title)

By

(Title)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By
(Division Administrator)

For: E. L. Green

Date executed by Division Administrator 6-18-79

Form PR-2 (Rev. 10-75) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PREPARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation..

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects. No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtedness of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 307 (c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Administrator concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

8950

4

FORM S-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Bend, Oregon 97701

DATE June 19, 1979

TO Walt Hart
Bridge Engineer

FROM W. W. Robertson
Resident Engineer

SUBJECT
Bend S. C. L. - Murphy Road
Contract 8950
Prefix 9 - 1014

Herewith find 4 copies each of shop drawings for cover frame and Modified frame for 17 Special Inlets, grate and frame for 7 G-1 or G-2 inlets and Special Grates for 34 G-3 inlets.

Versteeg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
JUN 20 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring up ___/___/___
Action

REFERRED TO

Beard Stoudenmeyer
Cole Sample
Eriksen Watson
Hager Dorn Leu
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

RECEIVED
JUN 20 1979
BRIDGE SECTION

DOUGLAS S COATS CONSTRUCTION
P. O. Box 311
BEND, OREGON 97701

(503) 382-7330

LETTER OF TRANSMITTAL

DATE	JOB NO.
6/18/79	
ATTENTION: WILL ROBERTSON	
RE: BEND S.C.L. - MURPHY RD.	

TO OSHD
BEND

GENTLEMEN:

WE ARE SENDING YOU ☐ Attached ☐ Under separate cover via _____ the following items:

☒ Shop drawings ☐ Prints ☐ Plans ☐ Samples ☐ Specifications
☐ Copy of letter ☐ Change order ☐ _____

COPIES	DATE	NO.	DESCRIPTION
4	6/18	4	CONCRETE INLETS
4	"	4	CONCRETE INLET FRAMES

THESE ARE TRANSMITTED as checked below:

☒ For approval ☐ Approved as submitted ☐ Resubmit _____ copies for approval
☐ For your use ☐ Approved as noted ☐ Submit _____ copies for distribution
☐ As requested ☐ Returned for corrections ☐ Return _____ corrected prints
☐ For review and comment ☐ _____
☐ FOR BIDS DUE _____ 19_____ ☐ PRINTS RETURNED AFTER LOAN TO US

REMARKS PRINTS FROM MID OREGON ON GRATES & FRAMES.

RECEIVED
JUN 18 1979
W. W. ROBERTSON
ASSISTANT ENGINEER

RECEIVED
JUN 20 1979
BRIDGE SECTION

COPY TO _____

SIGNED: W. W. Robertson

If enclosures are not as noted, kindly notify us at once.

FORM 24N-2 Available from NEBS Inc., Townsend, Mass. 01470

Oregon State Highway Division
Salem, Oregon, June 8, 1979

Federal Aid Project
No. F-4-2 (6)

BEND SCL - MURPHY RD. SECTION
THE DALLES - CALIFORNIA HIGHWAY
DESCHUTES COUNTY

Project Agreement Estimate.

Type Code 6203
Roadway (Sta. 102+50 to Sta. 210+12.64)

Mobilization	All Required		$ 150,000.00
Temporary Protection and Direction of Traffic	All Required		20,000.00
Temporary Signs	600 Sq.Ft.	5.00	3,000.00
Temporary Barricades	30 Each	50.00	1,500.00
Temporary Continuous Rail Traffic Barrier, Reflectorized	560 Lin.Ft.	10.00	5,600.00
Temporary Plastic Safety Markers	40 Each	100.00	4,000.00
Flagmen	4,000 Hour	1.00	4,000.00
Clearing and Grubbing	All Required		30,000.00
Removal of Structures and Obstructions	All Required		30,000.00
Ditch Excavation	150 Cu.Yd.	20.00	3,000.00
Embankment In Place	24,100 Cu.Yd.	0.50	12,050.00
Trench Excavation	550 Cu.Yd.	30.00	16,500.00
Finishing Roadbed and Slopes	All Required		84,000.00
Watering	920 M. Gal.	10.00	9,200.00
Bituminous Base Mixture	13,300 Ton	12.00	159,600.00
Asphalt In Bituminous Base Mixture	730 Ton	100.00	73,000.00
1"-0 Aggregate Base	18,600 Ton	6.00	111,600.00
Class "B" Asphalt Concrete Mixture	13,000 Ton	12.00	156,000.00
Class "B" Asphalt Concrete Mixture In Leveling	4,000 Ton	12.00	48,000.00
Asphalt Cement In Mixture	1,110 Ton	100.00	111,000.00
Asphalt In Tack Coat	20 Ton	200.00	4,000.00
Asphalt Membrane	500 Sq.Yd.	6.00	3,000.00
4-inch PVC Pipe	270 Lin.Ft.	10.00	2,700.00
8-inch PVC Pipe	200 Lin.Ft.	20.00	4,000.00
6-inch Steel Pipe	44 Lin.Ft.	20.00	880.00
12-inch Culvert Pipe	620 Lin.Ft.	12.00	7,440.00
18-inch Culvert Pipe	250 Lin.Ft.	17.00	4,250.00
24-inch Culvert Pipe	100 Lin.Ft.	35.00	3,500.00
12-inch Siphon Pipe	100 Lin.Ft.	50.00	5,000.00
12-inch Irrigation Pipe	290 Lin.Ft.	25.00	7,250.00
18-inch Irrigation Pipe	160 Lin.Ft.	40.00	6,400.00
24-inch Irrigation Pipe	60 Lin.Ft.	46.00	2,760.00
8-inch Sewer Pipe	12 Lin.Ft.	40.00	480.00
Extra For Pipe Under Pavement	96 Lin.Ft.	20.00	1,920.00
Bedding Material	60 Cu.Yd.	15.00	900.00
Concrete Manholes	20 Each	1,200.00	24,000.00

Oregon State Highway Division
Salem, Oregon, June 8, 1979

Federal Aid Project
No. F-4-2 (6)

Special Manholes	1	Each	3,500.00	3,500.00
Concrete Inlets, Type B	5	Each	500.00	2,500.00
Concrete Inlets, Type G-1	2	Each	400.00	800.00
Concrete Inlets, Type CG-1	5	Each	550.00	2,750.00
Special Concrete Inlets	17	Each	3,150.00	53,550.00
Granular Backfill	17	Cu.Yd.	25.00	425.00
Steel Sleeves	34	Each	30.00	1,020.00
Steel Elbows	17	Each	50.00	850.00
6-inch PVC Pipe	85	Lin.Ft.	10.00	850.00
Concrete Siphon Boxes	7	Lin.Ft.	2,500.00	17,500.00
Concrete Diversion Boxes	3	Lin.Ft.	2,000.00	6,000.00
6-inch Drain Pipe	160	Lin.Ft.	10.00	1,600.00
Special Filter Material In Drains	15	Cu.Yd.	20.00	300.00
Guard Rail, Type 1	38	Lin.Ft.	10.00	380.00
Guard Rail, Type 2A	25	Lin.Ft.	15.00	375.00
Guard Rail, Type 3	25	Lin.Ft.	30.00	750.00
Guard Rail Anchors, Type 1	1	Each	300.00	300.00
Extra For Guard Rail Bridge Connections	1	Each	120.00	120.00
Rail End Pieces, Type A	4	Each	30.00	120.00
Rail End Pieces, Type C	1	Each	150.00	150.00
Concrete Walks	1,370	Sq.Yd.	12.75	17,467.50
Concrete Driveways	730	Sq.Yd.	14.50	10,585.00
Concrete Curbs	6,550	Lin.Ft.	4.80	31,440.00
Concrete Islands	13	Cu.Yd.	300.00	3,900.00
Extra For Asphalt Approaches	125	Each	200.00	25,000.00
Extra For Asphalt Walks	25	Sq.Yd.	10.00	250.00
Adjusting Boxes	1	Each	100.00	100.00
8-inch Drain Wells, 100 Ft. Deep	17	Each	2,000.00	34,000.00
8-inch Drain Wells, Below 100 Ft. Depth	600	Lin.Ft.	10.00	6,000.00
8-inch Steel Well Casing	850	Lin.Ft.	10.00	8,500.00
Removal Of Existing Sign Installations	All	Required		2,000.00
Wood Sign Posts	All	Required		4,000.00
Type "C" and "D" Signs In Place	319	Sq.Ft.	10.00	3,190.00
Type "EE" Signs In Place	56	Sq.Ft.	10.00	560.00
Type "EEE" Signs In Place	9	Sq.Ft.	10.00	90.00
Type "I" Signs In Place	32	Sq.Ft.	10.00	320.00
Type "U" Signs In Place	150	Sq.Ft.	20.00	3,000.00
Move And Reinstall Existing Signs	All	Required		2,000.00
				$ 1,356,772.50

Oregon State Highway Division
Salem, Oregon, June 8, 1979

Federal Aid Project
No. F-4-2 (6)

Anticipated Items		
Permanent Pavement Striping	All Required	$ 4,000.00
Temporary Pavement Striping	All Required	2,500.00
Temporary Erosion Control	All Required	1,000.00
Remove Pavement Striping (Exist. & Temp.)	All Required	2,200.00
On The Job Trainees (2 at $800)	All Required	1,600.00
Work by Pacific Power and Light	All Required	26,990.00
Work by City of Bend Water	All Required	20,668.00
		$ 58,958.00
	Subtotal	$ 1,415,730.50
	Engineering	176,966.50
	Total	$ 1,592,697.00

Type Code Y031
Traffic Signal (At 3 Intersections)

Traffic Signal Installation, Complete	All Required	$ 118,690.00
Fire Pre-emption Installation	All Required	13,332.00
	Subtotal	$ 132,022.00
	Engineering	11,202.00
	Engineering (Sig. Cont. Testing)	5,300.00
	Total	$ 148,524.00

Length of Roadway - - - - - - - - - - - - - 2.048 mi.
Cost of Roadway Per Mile - - - - - - - - - $ 777,684.08

Work Retained in Program Status
(not included in amounts below)

Work by Pacific N.W. Bell	All Required	$ 2,500.00
Work by Roats Waterworks Inc.	All Required	1,500.00
Construct Drain Well Basin	All Required	9,000.00
Adjust Vent Pipes, Sta. 127-133	All Required	500.00
Adjust Private Water Lines	All Required	3,000.00
Asphalt Cement Adjustment	All Required	32,200.00

Oregon State Highway Division
Salem, Oregon, June 8, 1979

Federal Aid Project
No. F-4-2 (6)

SUMMARY OF FUNDS (88.15%)

Description	Total Cost	Federal Funds	State Funds
Roadway	$ 1,592,697	$ 1,403,962	$ 188,735
Signals	148,524	130,923	17,601
Total	$ 1,741,221	$ 1,534,885	$ 206,336

Group 1 99%; Group 8 01%
Contract No. 8950
Prefix 9-1951
Prefix 9-1014

Oregon State Highway Division
Salem, Oregon, June 8, 1979

Federal Aid Project
No. F-4-2 (6)

BEND SCL - MURPHY RD. SECTION
THE DALLES - CAL. HIGHWAY
(Nonparticipating - State Work)

Setting Mailbox Posts	38 Each	100.00	$ 3,800.00
Furnish Mailbox Posts	All Required		600.00

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

8950

LETTER OF APPROVAL AND/OR AUTHORIZATION

6-5-79

FEDERAL AID PROJECT NO.
F-4-2(6)

STATE PROJECT NO.
See below

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
90083

COUNTY NAME
Deschutes

PROGRAM STAGE (Check)
2.

RECEIVED
STATE HWY ENGR
JUN 12'79
REFER TO
FOR
Info | Invite | R/D | D/R | Sign | Act | File

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

6-12 only Machine

DATE PS&E APPROVED

DATE AUTHORIZATION EFFECTIVE
6-5-79

FEDERAL ROUTE NUMBER
Primary 4

STATE ROUTE NUMBER
Primary 4

GENERAL LOCATION:
Bend South City Limits-Murphy Road Section

GENERAL DESCRIPTION OF WORK:
Utility Adjustment

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☒ OTHER (Specify) Utility Adjustment
Roats Water System, Inc.

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of May 22, 1979, you are now authorized to proceed with the actual adjustments for the water facility of Roats Water System, Inc. Reimbursement on a lump sum basis of $2,954.90 is approved. I approve the Agreement with Roats Water System, Inc.

Approval and participation for the portion of work authorized above is subject to the provisions of the Federal-aid Program Manual.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
6-5-79	E. K. Hoggard	for Division Administrator

FORM PR-1240 (REV. 6-68) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—721-012

8950

ROW 18-4

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

May 22, 1979

In Reply Refer to
File No.:

Mr. G. L. Green
Division Administrator
Federal Highway Administration
530 Center Street, N.E., Suite 100
Salem, OR 97301

Water Facility Relocation
Roats Water System, Inc.
Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County
Project No. F-4-2(6)

NOTED
E. S. HUNTER

Dear Mr. Green:

Here is a copy of a lump sum estimate of cost to adjust Roats Water System's facilities dated May 10, 1979, and a sketch showing their proposed relocation.

A certification prepared by Richard O. Havig as to Roats' rights in the land occupied by their facilities is in our files.

A copy of the relocation letter to Roats dated April 5, 1979 was previously supplied your office.

An appropriate permit for the utility's proposed relocation will be issued.

The State is not entitled to a credit for expired service life under the provisions of Paragraph 9b (1) (b) of PPM 30-4, as the relocation involves four (4) crossings of the project by the facilities.

There will be no betterment derived from the proposed adjustment of Roats' facilities.

Your approval of the lump sum agreement, as evidenced above, and authorization to proceed with the work under the provisions of PPM 30-4 and 30-4.1 is requested. Estimated cost to the State is $2,954.90

Yours truly,

D. E. Swan
Federal-Aid Engineer

RECEIVED
TECHNICAL SERVICES
MAY 23 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Apt | File

DES/JMC/seb
Enclosure
cc: E. S. Hunter
Jack M. Cartwright
R. O. Havig

Form 734-3122

AN EQUAL OPPORTUNITY EMPLOYER

8950

Salem, Oregon
May 11, 1979

H. S. Coulter
State Highway Engineer

Footpaths and Bicycle Trails
May 24, 1979 Bid Letting

F I L E

Bend - Sch - Mun. Hwy. Rel.

This is an informational report to document the Highway Division's action taken with regard to establishing footpaths and bicycle trails as set forth in ORS 366.514. Bids will be opened May 24 on the following projects:

1. Broadway @ 16th Street (North Bend)
   Cape Arago Highway, Coos County
   Traffic Signals

   Footpaths or bicycle trails are not incorporated in this project as no new highway construction, reconstruction or relocation is involved.

2. Esplanade Street-Shasta Way
   Klamath Falls-Malin Highway, Klamath County
   Traffic Signals

   Same as No. 1.

3. N.E. Halsey Street at N.E. 223rd Avenue
   FAP No. IX-9867-2, Multnomah County
   Traffic Signals

   Same as No. 1.

4. Beaver Creek Bridge
   Powers Highway, Coos County
   Structure
   0 to 6-foot shoulders on approaches; 6-foot shoulders on structure

   Footpaths and bicycle trails will not be established under this project as per ORS Chapter 366, Section 2, subsection 2(c), which states, "footpaths and trails are not required to be established . . . where sparsity of population, other available ways or other factors indicate an absence of any need for such paths and trails."

5. Ochoco Highway-Ochoco Ranger Station
   Ochoco Ranger Station Road, Crook County
   Grading and Oiling
   28-foot roadway including 3-foot gravel shoulders

   Same as No. 4.

6. N. Umpqua River (Winchester) Bridge
   Pacific Highway, Douglas County
   Structures
   Redecking structure

   Same as No. 1.

7. Grants Pass Pavement Marking
   City Streets, Josephine County
   Pavement Marking

   Same as No. 1.

8. Jantzen Beach Information Center
   Pacific Highway, Multnomah County
   Earthwork, Paving and Building
   Sidewalks and ramps to be constructed for pedestrian and bicycle use

9. S.E. Morrison Bridge Ramp
   Pacific Highway East (Grand Ave.), Multnomah County
   Grading, Paving and Signals
   Existing 12-foot sidewalk on east side of Grand Avenue to remain in place

10. Deschutes River (Sherars) Bridge
    Sherars Bridge Highway, Wasco County
    Structure
    20-foot roadway with 4-foot shoulders on structure and approaches

    Same as No. 4.

11. Willamina Avenue-26th Avenue (Forest Grove)
    Main Street (Washington County)
    Grading and Paving
    40-foot street, curb-to-curb, with 5-foot sidewalks to be constructed

12. S. Unit Astoria-Camp Rilea
    Oregon Coast Highway, Clatsop County
    Grading and Paving
    Shoulders will be striped and signed as a bikeway

13. Bend S.C.L.-Murphy Road
    The Dalles/California Highway, Deschutes County
    Grading and Paving
    Shoulders will be striped and signed as a bikeway

14. N.E. Umatilla Street and N.E. 4th Avenue (Sutherlin)
    City Streets, Douglas County
    Grading and Paving
    5-foot sidewalks with pedestrian ramps to be constructed

15. Progress Interchange Off Ramp to
Scholls Ferry Road, Washington County
Grading, Paving and Signals

Same as No. 4.

16. Shaniko-The Dalles/California Highway
Sherman Highway, Wasco County
Oiling
32 to 40-foot roadway with 4-foot shoulders

Same as No. 4.

RPS:ge

cc: F. B. Klaboe
E. S. Hunter
D. G. Talbot
L. E. George
F. E. Terpin
George Bell
Don Harwell

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

1950

LETTER OF APPROVAL AND/OR AUTHORIZATION

5-2-79

FEDERAL AID PROJECT NO.
-4-2(6)

STATE PROJECT NO.
See below

FROM:
G. L. Green, Division Administrator
FHWA - Oregon Division Salem, Oregon

PROGRAM NO.

ITEM NO.
90083

COUNTY NAME
Deschutes

PROGRAM STAGE (Check)
☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
MAY 17 '79
REFER TO
FOR
Init. | Invest. | R/O | D/R | Sign | Act. | File

5-17 ovnight to

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	5-2-79	Primary 4	Primary 4

GENERAL LOCATION:
Bend South City Limits - Murphy Road Section

GENERAL DESCRIPTION OF WORK:
Grade, Pave, signing and signals

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION
☒ OTHER (Specify)

Tem/Pavement Striping (SF) $4,000
Perm/Pavement Striping (SF) 2,500
Temp/Erosion Control 1,000
Remove Striping (SF) 2,200
On the job Training 1,600

☐ ACQUISITION OF RIGHT-OF-WAY
☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

After concurrence in award you are authorized to proceed with those items listed above as shown in your Estimate.

Mr. Swan's 4-30-79 request and certifying statements are accepted.

PS&E documents for the subject project have been reviewed and are approved at a total estimated cost of $1,688,093 - Federal funds $1,487,922.

A signed copy of the Title sheet is returned herewith.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-2-79	G K Hansen	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1976-631-086

8950

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

4-12-79

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. F-4-2(6)

STATE PROJECT NO. See below

COUNTY NAME Deschutes

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 90083

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

4-25 orig to

RECEIVED
STATE HWY ENGR
APR 25 '79
REFER TO
Machung
FOR
Info | Proc | R/D | O&R | Sgn | Mail | File

DATE P/S & E APPROVED

DATE AUTHORIZATION EFFECTIVE 4-16-79

FEDERAL ROUTE NUMBER Primary 4

STATE ROUTE NUMBER Primary 4

GENERAL LOCATION:

Bend South City Limits - Murphy Rd. Section

GENERAL DESCRIPTION OF WORK:

Utility Adjustment

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
- ☐ LOCATION ONLY
- PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
- ☐ PREPARATION
- ☒ OTHER (Specify) Utility Adjustment City of Bend

- ☐ ACQUISITION OF RIGHT-OF-WAY
- CONTRUCTION - ADVERTISE FOR RECEIPT
- ☐ OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of April 9, 1979, I approve the Agreement with the City of Bend for the relocation of water facilities and you are now authorized to proceed with the actual adjustments. Reimbursement on an actual cost basis estimated to be $20,668 is approved.

Approval and participation for the portion of work authorized above is subject to the provisions of the Federal-aid Program Manual.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
4-19-79	E. J. Tschuck	for Division Administrator

FORM FHWA-1240 (REV. 8-70) EXISTING STOCKS OF FORM FHWA-1240 (REV. 6-69) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1978—626-787

8950

4

STATE OF OREGON

INTEROFFICE MEMO

Highway - Traffic DEPT. 378-6537 TELEPHONE

TO: MEMO TO FILE

DATE: April 11, 1979

FROM: Elmer L. Scofield
Sign Design Engineer

SUBJECT: Bend South City Limits-Murphy Road Section
The Dalles-California Highway
Deschutes County

John Holcomb, Region 4 Traffic Engineer, called this morning and requested the removal of "GOLF COURSE" signing on the above-named project.

When the study plans were prepared, there were existing official highway signs directing traffic to the golf course. No comments were received regarding the "GOLF COURSE" signing in the correspondence during preparation of the sign study plans.

According to John Holcomb, the Region has received a complaint about the present signing to the golf course and he is ordering all existing signs to the private club removed.

The Design Section has been requested to revise the signing on the proposed project as shown on the attached print.

ELS:ds
Attachment

cc: D. D. Allen
F. T. Lacey
Lyle Watson

REFERRED TO
Beard, Stoudenmayer, Cole, Sample, Eriksen, Watson, Hager, Doin, Lau
Return, Discuss, File Copy, Due
BY FINAL DESIGN ENGINEER

RECEIVED
APR 12 1979
ROAD DESIGN SECTION

Watson
Versteeg, Anderson, Christensen, Olson, Sullivan, Terpin, Trout, Wakerlig
Do Not File
Return To
Bring Up
Action

Match Line 155

160

165

167+80

ALLEY NO.

"STOP"

175

158+00

160+40

"SPEED 45"

"CENTER LANE — LEFT TURN ONLY"

"STOP"

BADGER TRAIL

170+10

3'-3"

BADGER RD. 5"C

2 Reqd Type "U"

3'-9"

3'-9"

GOLF COURSE 8"C

LEFT LANE 8"C

Type "U"

Delete

3'-9"

MURPHY RD. 5"C

GOLF 8"C

COURSE 8"C

Type "U"

4'-6"

4'-6"

3'-9"

MURPHY RD. 5"C

GOLF 8"C

COURSE 8"C

Type "U"

Delete

(Mount Signs On Signal Pole)

SIGNAL AHEAD

SIGNAL AHEAD

SPEED 45

Existing Sign To Remain In Place

MURPHY RD.

185

190

195

200

Match Line

PINEBROOK BLVD.

183+00

187+00

"STOP"

4'-0"

PINEBROOK BLVD. 5"C

2 Reqd Type "U"

RIGHT LANE ENDS

SIGNAL AHEAD

Existing "DESTINATION AND MILEAGE" Sign To Remain In Place

SPEED 55

Existing Sign To Remain In Place

8950

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: #4 9-08
9-1951

Bend, Oregon 97701
April 11, 1979

FROM: John E. Holcomb
Region Traffic Engineer

SUBJECT: Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County

TO: Memo to the File

This memo is to document a request for a change in the permanent signing for the subject section as shown on sheet 2-G of the preliminary palns. All signing relating to "Golf Course" should be deleted. This is a private country club not open to the public, and Region feels this type of signing should not be subsidized with public funds.

Within the last two weeks, the writer has personally received two calls from citizens complaining of a "Golf Course" sign mounted above the "Stop" sign at Murphy Road. One of the callers, a woman, was quite irate and demanded to know why her tax money was being used for this type of signing.

I discussed this with District Engineer R. L. Lammert, and he said he would have it removed. Apparently, the sign was not state owned.

JEH:mr

cc: L. E. George
Lyle Watson
Bob Lammert
Wil Robertson

REFERRED TO
2 Decrd — Stoudenmeyer
Cole — Sample
Eriksen — 1 Watson
Hager — Dorn — Leu
Return — Discuss — Do — File Copy — Due
BY FINAL DESIGN ENGINEER

Watson

Versteeg
Anderson
1 Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
APR 12 1979
ROAD DESIGN SECTION

Do Not File
Return To
Bring Up ___/___/___
Action

ROW 18-4

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

April 9, 1979

NOTED
E. S. HUNTER

In Reply Refer to File No.:

Mr. G. L. Green
Division Administrator
Federal Highway Administration
530 Center St., N.E., Suite 100
Salem, OR 97301

Water Facilities Relocation
City of Bend
Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County
Project No. F-2-4(6)

Dear Mr. Green:

Here is a copy of an estimate of cost to adjust City of Bend's water facilities, received March 21, 1979, and a sketch showing their proposed relocation.

A certification prepared by Richard O. Havig as to the City's rights in the land occupied by their facilities is in our files.

A copy of the relocation letter to the City dated February 26, 1979, was previously supplied your office.

An appropriate permit for the utility's proposed relocation will be issued.

The State is not entitled to a credit for expired service life under the provisions of Paragraph 9b (1) (b) of PPM 30-4, as the relocation involves a segment of facilities less than one mile in length and crossings.

There will be no betterment derived from the proposed adjustment of the City's facilities.

Your approval of the actual cost agreement, as evidenced above, and authorization to proceed with the work under the provisions of PPM 30-4 and 30-4.1 is requested. Estimated cost to the State is $20,668.

Yours truly,

D. E. Swan
Federal-Aid Engineer

RECEIVED
TECHNICAL SERVICES
APR 10 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

DES/seb
Enclosure
cc: E. S. Hunter
Jack M. Cartwright
R. O. Havig

Form 734-3122

8950

Jack Cartwright
Utility Unit

April 5, 1979

C. W. Read
Commission Services

MISC. CONTRACTS and
AGREEMENTS No. 7044

As requested, attached are three copies of an agreement with Arnold Irrigation District covering highway construction and reconstructing their facilities on the Bend 5Cl.-Murphy Road Section of The Dalles-California Highway in Deschutes County.

It is my understanding that you will secure the signature of the Irrigation District. Please return an original signed copy of this agreement to this office for the Transportation Commission's files.

Returned from
AID 4/24/79

fkm
Attn.

Form FHWA 121 (Rev. 5-73)

8.150

UNITED STATES GOVERNMENT

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Salem, Oregon

Memorandum

Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Road Section
File 50040, Mathews

SUBJECT:

DATE: April 4, 1979

In reply refer to: HRW-OR

FROM : G. L. Green, Division Administrator

NOTED
E. S. HUNTER

TO : Mr. H. S. Coulter, State Highway Engineer

Right of Way Manager Boyd's letter of April 2, 1979 provides answers to my letter of January 30, 1979. Concerning "Action by State to improve sign appraisals", it is our understanding based on discussions with Appraisal Supervisor Mead that the State intends to improve the sign appraisal process so as to insure better documented reports. It is our understanding that this may consist of changes to the Right of Way Manual as well as working with Regional appraisers to assure that sign appraisals (specialty appraisals) are properly documented.

Concerning "Offer to move signs vs. offer to purchase", it is our understanding that the State's Right of Way Manual will be revised to indicate that if a sign is real property a written offer to purchase will be made. This is in accordance with the agreements reached in Mr. Boyd's letter of March 9, 1979.

Based on the above, we have no further questions concerning Federal participation in this settlement.

Original Signed by
C. J. Mathias
Div. ROW Officer

G. L. Green

cc:
OSHD (E S Hunter)
OSHD (J B Boyd)
OSHD (M M Mead)
OSHD (D Luth)
OSHD (F Lowe)

RECEIVED
TECHNICAL SERVICES
APR 4 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

8950

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

April 3, 1979

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM D. E. Swan
Federal Aid Manager

NOTED
E. S. HUNTER

SUBJECT Bend S.C.L.-Murphy Road
Oregon Project No. F-4-2(6)
Right-of-Way Clearance

We hereby request the requirements of paragraph 5 of FHPM 6-4-2-1 and paragraph 7 of FHPM 6-4-1 (relative to contracter's working restrictions, immediate occupancy and use at the anticipated advertising date) be waived as being in the public interest for the above mentioned project. This project is being prepared for our regular bid opening date of May 24, 1979 with a three week advertising period beginning May 3, 1979.

On this project 3 unimproved parcels are being processed for condemnation but payment has not been completed. The complaints will be filed and all payments will be made into Court on May 10, 1979. The files under condemnation are:

50067	Allison	E. Sta. 177+80 to 186+20	.29 Ac.
50070	Callahan	W. Sta. 182+10 to 187+50	.18 Ac.
50165	Hemmingson	E. Sta. 153+00 to 157+00	.15 AC.

We feel it is in the public interest to advertise this project before the right-of-way is clear because our obligations will be paid during the advertising period and there will be no award or construction delay, because these three files are not now closed. In addition, our design is completed and the project is ready for advertising; by advertising as early as possible, we will be able to take advantage of the full summer construction season.

DAR:dmc
cc: E. S. Hunter
J. B. Boyd
J. H. Versteeg
F. Lowe
Jack Sullivan

RECEIVED
TECHNICAL SERVICES
APR 4'79
REFER TO
FOR
Info | Levels | R/D | D/R | Staking | Agt | File

8950

4

ROBERT W. STRAUB
GOVERNOR

Department of Transportation
STATE HIGHWAY DIVISION
Bend, OR 97701

IN REPLY REFER TO
FILE NO
50522

April 2, 1979

Mr. James W. Parry
Assistant Vice-President
Bank Properties Division
U. S. National Bank of Oregon
P. O. Box 4412
Portland, OR 97208

File 50522
Bend S. City Limits-Murphy Rd. Section
The Dalles-California Hwy.
Deschutes County

Dear Mr. Parry:

We have been notified by our Design Section that the drain well system proposed on the U. S. National Bank property has been tested and found unsuitable for our purposes. Acquisition of the property is, therefore, unnecessary, and I am returning the Permit of Entry.

Thank you for your cooperation in this matter. It has been greatly appreciated.

Very truly yours,

Jock G. Elliott
Right of Way Agent

cc Versteeg ✓

JGE:eh

Enclosure

cc J. B. Boyd

RIGHT OF WAY SECTION
RECEIVED
APR 3 1979
ARA RE CA RS

REFERRED TO
Beard ___ Stoudenmeyer ___
Col ___ Sample ___
Eriksen ___ Watson ___
Hager ___ Dorn ___ Leu ___
Return Discuss Do File Copy Due ___
BY FINAL DESIGN ENGINEER

Versteeg ✓
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
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RECEIVED
APR 0 3 1979
ROAD DESIGN SECTION

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NOTED

Form 734-3123

GOVERNOR

Department of Transportation

HIGHWAY DIVISION

TRANSPORTATION BUILDING, SALEM, OREGON 97310

April 2, 1979

In Reply Refer to
File No.:

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: File 50040 - Mathews
Bend South City Limits-Murphy Road Sec.
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

By letter dated January 30, 1979, you requested further information concerning subject file.

(1) Action by State to improve sign appraisals.
At the time of review, the reviewing appraiser recognized the minimal nature of the valuations submitted by Carlson. While satisfying himself that Carlson did in fact make more detailed analyses of each sign valued, nothing further was received to document the files. Attached are copies of the work sheets used by Mr. Carlson. While brief, they are considered adequate for their purpose when recognition is given to the active professional status of the valuator. The costs given by Carlson to purchase the signs are replacement cost new. The real estate appraisers assigned depreciation as they observed the individual signs in relation to the individual properties.

(2) Offer to move signs vs. offer to purchase.

The State's procedures are not clear cut. Negotiations for purchase or move of a sign is frequently guided toward the best interests of the State. It is generally assumed that either action will result in just compensation to the owner. Thus, when it is shown that the sign owner will reestablish upon the remainder, and when the sign owner can be made whole--in respect to the sign--by moving the sign to the remainder, the State has negotiated to pay the costs of moving in lieu of purchase.

Pertinent procedures are set forth in Sec. 5.390 of our Right of Way Manual. This chapter is presently being revised. Proposed revisions will modify and/or clarify

NOTED
F. B. KLABOE

Form 734-5122

our sign policy. A draft of Chapter 5 will be forwarded to you for review and comment when ready.

(3) Comments concerning tenant-owned sign.
The State's basic policy concerning Lessee Interests is set forth in Sec. 5.345. Exceptions relating to signs are shown under Sec. 5.390. However, basic negotiations are normally conducted with the fee owner, subject to the provisions in Sec. 5.345 as it relates to informing the lessee of the effect of the taking upon his interest. The file indicates that the lessee has been advised of our taking. Payment for moving the sign has not yet been tendered. Egan's letter of March 7, 1979 to the grantors states the "allowance for moving the sign will be paid when the work has been completed." It appears that the lessee's interests have been adequately protected.

We trust the foregoing is responsive to the issues raised in your January 30, 1979 letter. Please advise whether additional information is required.

JBB:ob
Attachment
bcc - F. B. Klaboe
E. S. Hunter
M. M. Mead
Frank Lowe

RECEIVED
DOT DIRECTOR
MR3 79
REFER TO
FOR

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

DATE: January 30, 1979

In reply refer to: HRW-OR

SUBJECT: Oregon Project F-4-2(5)
Bend South City Limits-Murphy Rd. Section
File 50040 - Mathews
Deschutes County

FROM : G. L. Green, Division Administrator

NOTED
E. S. HUNTER

RECEIVED
TECHNICAL SERVICES
JAN 31 '79
REFER TO
FOR
Info | Inves | P/D | D/R | Sign | Act | File

TO : Mr. E. S. Hunter, Manager
Office of Technical Services
Oregon Department of Transportation

A review of the right of way settlement of $28,565 covering a partial acquisition from the subject property has raised several issues which need resolution in order for us to determine the extent of Federal participation. Information is requested as follows:

1. What action has the State taken to improve the quality of the sign appraisals being prepared for signs to be acquired, or signs to be moved on this project? The sign appraisals on the subject file are an example of the inadequate documentation. The sign appraisals lack an adequate description of the sign to be acquired and do not contain any photographs. The replacement costs are not documented. The depreciated costs are not documented. The cost of moving is not documented.

2. The review appraisal is $31,200, including sign acquisitions. The negotiation offer to the property owner in the amount of $28,565 included allowances to move the signs but not to acquire the signs. It is our understanding that under State law such signs are considered real property and as such there should be an offer to the owners that includes the fair market value of the signs. The sign owner can be tendered an additional offer of the cost to move. Your comments are requested concerning State procedures regarding offering to purchase the sign if in fact the sign is real property.

3. Your comments are requested concerning the Handry Pantry sign which is owned by a tenant. It is our understanding that the fee owners were paid $1,510 to move the sign. What is State procedure regarding payment to the fee owner when the sign is owned by a tenant?

G. L. Green

cc:
J. B. Boyd (ODOT)
Frank Lowe (ODOT)

3750

4

STATE OF OREGON

INTEROFFICE MEMO

Highway DEPT. 378-6299 TELEPHONE

DATE: March 30, 1979

TO: Dale Allen
Region 4 Engineer

FROM: Rod Henry, Assistant
Right of Way Manager

SUBJECT: File 50035
Bend South City Limits-Murphy Road Section
The Dalles-California Highway
Deschutes County

I am enclosing a letter from Attorney Vernon Robinson concerning a potential drainage problem in the vicinity of Engineer's Station 127+00 on this project. The preliminary construction plans indicate that the culverts referred to by Mr. Robinson, will be eliminated.

Would you please investigate this and determine if there is a potential problem.

1 Versteeg
Anderson
2 Christensen
Olson
Sullivan Copy
Terpin
Trout
Wakerlig

RECEIVED
APR 19 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up ___/___/___
Action

RJH:jk
attach.
cc: Harold Brainerd w/attach.

RDE RE RCE PLA FAE
RTE RECEIVED GEO
RUE APR 3 1979 RDE
RSO REGION 4 RBE
ASSIGNED Wil Blanton

Roc Pool & I looked at this April 13th. To date the property owner "Jacques" has filled in to the new (now) line and has installed approx 80 ft of salvaged 12" CMP. under the approach to the new car wash.

I called Bill Cole in Salem [illegible] design and he can not change the plans but contract will [illegible] plans for fixing problem [illegible] etc. Bill thought the canal would be of use, also ? dry [illegible] used in the futur[illegible]

VERNON W. ROBINSON
ATTORNEY AT LAW
126 N. E. FRANKLIN AVENUE
BEND, OREGON 97701

TELEPHONE 382-6226

March 28, 1979

J. B. Boyd
Right-of-Way Manager
Oregon State Highway Dept.
Transportation Bldg.
Salem, Oregon 97310

Dear Mr. Boyd:

I represent Ivan M. Palmer owner of property on S. Hwy 97, which is included in your Bend South City Limits - Murphy Road Section in Deschutes County, Oregon, which is to be expanded sometime this year. You previously purchased right-of-way from Mr. Palmer.

The property immediately to the North of Mr. Palmer, owned by Mr. Jacques, has historically been in the area along which flood water flows from the Palmer property proceeding North on the Jacques property into the main COI canal. To take care of this water problem, the prior owner to the Jacques property installed a culvert on the two road openings to allow free passage of this water. It appears that with the widening of the Dalles-California Highway, that these culverts will be covered up and in future years there will be no place for the flood waters to run.

I would recommend that the entire frontage along Jacques property have a culvert installed so that the flood waters may proceed through the Jacques property as it has historically done. If this is not done and in future years flooding does occur on the Palmer property and there is no place for the flood waters to go, then we will be looking to the Highway Department for damages. Would you therefore, please see that the Jacques property has a culvert parallel to the property along the course of the existing culvert into the two driveways on the Jacque property so that this contingency will not occur.

Very truly yours,

VERNON W. ROBINSON

VWR:dbr
cc: Jacques
Palmer

VERNON W. ROBINSON
ATTORNEY AT LAW
126 N. E. FRANKLIN AVENUE
BEND, OREGON 97701

TELEPHONE 382-6226

March 28, 1979

J. B. Boyd
Right-of-Way Manager
Oregon State Highway Dept.
Transportation Bldg.
Salem, Oregon 97310

Dear Mr. Boyd:

I represent Ivan M. Palmer owner of property on S. Hwy. [redacted], which is included in your Bend South City Limits - Murphy Road Section in Deschutes County, Oregon, which is to be expanded sometime this year. You previously purchased right-of-way from Mr. Palmer.

The property immediately to the North of Mr. Palmer, owned by Mr. Jacques, has historically been in the area along which flood water flows from the Palmer property proceeding North on the Jacques property into the main COI canal. To take care of this water problem, the prior owner to the Jacques property installed a culvert on the two road openings to allow free passage of this water. It appears that with the widening of the Dalles-California Highway, that these culverts will be covered up and in future years there will be no place for the flood waters to run.

I would recommend that the entire frontage along Jacques property have a culvert installed so that the flood waters may proceed through the Jacques property as it has historically done. If this is not done and in future years flooding does occur on the Palmer property and there is no place for the flood waters to go, then we will be looking to the Highway Department for damages. Would you therefore, please see that the Jacques property has a culvert parallel to the property along the course of the existing culvert into the two driveways on the Jacque property so that this contingency will not occur.

Very truly yours,

VERNON W. ROBINSON

VWR:dbr
cc: Jacques
Palmer

8750

4

STATE OF OREGON

INTEROFFICE MEMO

Transportation (DEPT.) 378-6299 (TELEPHONE)

TO: D. H. Moehring
Assistant State Highway Engineer

DATE: March 27, 1979

FROM: Rod Henry, Assistant
Right of Way Manager

SUBJECT: [redacted] South [redacted] Limits-
Murphy Road
R/W Certification
F-4-2(6)

Right-of-way acquisition on this project has not been completed and it will not be ready for contracting on April 26. There are three outstanding legal files that have not be acquired and we will not have possession of these properties until May 10, 1979.

RH:mk

CC: V. H. Versteeg
Duane Ridings
F. C. Lowe

Rod Henry

1 Versteeg ✓
Anderson
cj Christensen Copy
C!son
cj Sullivan Copy
Terpin
2 Trout
Wakerlig

RECEIVED
MAR 27 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up / /
Action

8750

LETTER OF APPROVAL AND/OR AUTHORIZATION

03 27 79

STATE PROJECT NO.	F-4-2(6) See below
COUNTY NAME	Deschutes
PROGRAM STAGE (Check)	☐ 1. ☐ 2.
PROGRAM NO.	
ITEM NO.	90083

FROM:
G. L. Green, Division Administrator
Salem, Oregon

TO:
Mr. H. S. Coulter, ODOT
State Highway Engineer
Salem, Oregon

RECEIVED
STATE HWY ENGR
MAR 30 '79
REFER TO
Meeting
FOR
Info | Invest | R/D | D.E. | Sec | Ltr | File

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	3-12-79	Primary 4	Primary 4

GENERAL LOCATION:
Bend SCL - Murphy Road Section

GENERAL DESCRIPTION OF WORK:
Utility Adjustment

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION
- ☒ OTHER (Specify) Utility Adjustment
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONTRUCTION - ADVERTISE FOR RECEIPT OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of March 19, 1979, this will confirm the advance authorization of Mr. D. B. Carter to proceed with the actual adjustments effective March 12, 1979 for Pacific Power and Light Company. Reimbursement on an actual cost basis is approved for a TEC NTE $26,990.

I approve the Agreement with Pacific Power and Light Co. Approval and participation for the portion of work authorized above is subject to the provisions of the Federal-aid Program Manual.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
3-27-79	E. W. Slack	for Division Administrator

FORM FHWA-1273 (REV. 8-76) EXISTING STOCKS OF FORM PR 1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

8950 Form FHWA 121 (Rev. 8-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Rd. Section
File 50070, Callahan

DATE: March 26, 1979

In reply refer to: HRW-OR

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer

Right of Way Manager Boyd's letter of February 22, 1979 advises that the State has revised their appraisal to consider the value of certain underground storage tanks as being real property. The actions taken by the State fulfill the requirements of my letter of August 16, 1979; however, this letter does not constitute an approval of the appraisal or appraisal review.

for G. L. Green

cc:
OSHD (J B Boyd)
OSHD (F Lowe)
OSHD (E S Hunter)

RECEIVED
STATE HWY ENGR
MAR 28 '79
LETTER TO
FOR
Init. | Histories | R/D | D/R | Sign | Act | Lgs

4/5. orig to

February 22, 1979

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: File 50070 - Callahan
Bend S. City Limits-Murphy Road
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

By letter dated August 16, 1978 (HRW-1-OR), you called our attention to the failure of the appraiser to treat underground storage tanks as real property.

This apparent oversight was corrected by revised appraisal as well as by our October 4, 1978 review, copies of which were routinely distributed to you.

Although subsequent changes in description and access have necessitated additional revisions, we trust that the aforementioned appraisal and review satisfied the intent of your letter.

NOTED
F. B. KLABOE

JBB:ob
cc - F. B. Klaboe
E. S. Hunter
M. M. Mead
Frank Lowe

RECEIVED
DOT DIRECTOR
MAR 1 '79
REFER TO
FOR
Info | Init's | R/D | D/R | Sign | Apt | File

895

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Road Section
File 50038 - Paxton

DATE: March 26, 1979

In reply refer to: HRW-OR

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer

Right of Way Manager J. B. Boyd's letter of March 5, 1979 indicates that the costs of making the State's original appraisal have been placed in a non-participating status as requested by our letter of January 8, 1979. The action taken by the State fulfills the intent of my letter of January 8, 1979.

Original Signed by
C. J. Mathias
Div. ROW Officer

G. L. Green

NOTED
E. S. HUNTER

cc:
OSHD (E S Hunter)
OSHD (J B Boyd)
OSHD (F Lowe)

415 sup. to Boyd

RECEIVED
TECHNICAL SERVICES
MAR 2 '79
REFER TO

8950

4

HIGHWAY DIVISION 378-6338

March 14, 1979

J. B. Boyd
Right of Way Manager

J. E. Verstoep
Road Design Engineer

File 30522
Road [illegible]
[illegible]
Buchanan County

Attached is a description, an authorization, and prints for the subject project, which is being processed at this time in the event test drilling is successful.

March 5, 1979

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: 50038 - Paxton
Bend S. City Limits-Murphy Road
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

By letter dated August 21, 1978 (HRW.1-OR), you requested additional information from the appraiser. On January 3, 1979, we replied to that letter, indicating additionally that the State had also secured a second appraisal.

Your response of January 8, 1979 (HRW-OR) withheld Federal participation in the costs of making the original appraisal. Attached for your information are copies of our transfers of cost distribution wherein the appraiser's charges have been placed in nonparticipating status.

We trust this action will satisfy the intent of your letters.

JBB:cb
Attachment
bcc - F. B. Klaboe
E. S. Hunter
M. M. Mead
Frank Lowe

NOTED
F. B. KLABOE

RECEIVED
DOT DIRECTOR
MAR 6 '79
REFER TO
FOR
Info | Invest | A/D | D/R | Sign | Ad | File

8750

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Bend, Oregon 97701

February 22, 1979

FILE: 9-1951

FROM: Richard O. Havig
Region Utility Engineer

SUBJECT: Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County

TO: Bill Cole
Location Section

The attached print shows a 1-inch water line (not sure of exact size) that will have to be relocated under the contract. This file is presently under condemnation and adjusting the water line won't be in the settlement.

Please have this set up under the contract, probably on extra work basis.

ROH:mr

encl

cc: Wil Robertson
Jack Cartwright

REFERRED TO
Board, Staudenmeyer, Cole, Sample, Briksen, Watson, Hager, Dorn, Lou
Return, Discuss, Do, Copy, Due
BY FINAL DESIGN ENGINEER

Verstoeg, Christensen, George, Olson, Terpin, Sullivan, Scott, Anderson

RECEIVED
FEB 23 1979
ENGINEERING SECTION

Trout
Do Not File
Return To
Bring Up
Action

8750 4

HIGHWAY DIVISION 378-6558

Gary Potter
Manager, Environment Section

A. D. Olson
Preliminary Design Engineer

February 15, 1979

Noise Study Report
Bend S.C.L. -Murphy Road Section
The Dalles-California Highway
Deschutes County

The above noise study report has been reviewed and copies of pages with suggested corrections or questions have been returned to the author.

The suggested six-foot wall on the west side of the roadway between Station 140+75 and Station 143+00 would be at the back of the future walk, 12 feet from the edge of running lane. This is estimated to cost approximately $22,000 and assumes the curb and sidewalk is to be built at this time in order to keep turning vehicles and other traffic away from the ends of the wall.

Cars leaving the driveways would have to stop with their bumpers about three feet from the edge of travel lane in order to see around the wall. This is not acceptable. Cutting the wall lengths to allow stopping off the shoulder at the normal stop line would require cutting 50 feet off the south end of the wall and 10 feet off the north end in order to see southbound and northbound traffic, respectively. This would materially reduce the effectiveness of the wall for the southerly house and slightly reduce attenuation for the northerly house. The cost would reduce to around $17,000 but would provide attenuation for only the one house.

It would appear that these are among the few residential units remaining in an area rapidly changing to commercial uses. While this has no bearing on the rules of 7-7-3 it should be considered in weighing the benefits that might be realized by this expenditure.

ADO:aj

/ Versteeg V
Christensen
George
Olsen
Terpin
Sullivan
Scott
Anuersen

RECEIVED
FEB 15 1979
ENGINEERING SECTION

Treut
Do Not File ☐
Return To
Bring Up ___/___/___
Action

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

February 12, 1979

FILE:

FROM: A. J. George, Engineering Coord.
Environmental Section

SUBJECT: Bend SCL-Murphy Road
The Dalles/California Hwy.
Deschutes County

TO: J. H. Versteeg
Engineering Section

This date I have hand delivered a draft copy of our noise study report on the subject project to Adrian Olson for cost estimates on a short segment of barrier. Your ASAP response is appreciated.

Also, instead of transmitting various requests for simple walls to your office for cost estimates, would it be appropriate for us to use updated versions of the tabular values supplied by the Bridge Design Section? We may be able to save a little time and paper shuffling on the smaller projects. On larger projects, or projects requiring berm estimates, we would still transmit request for cost estimates to your office. Comments?

AJG:sz

cc: Adrian Olson
Gary A. Potter

Versteeg ✓
Christensen
George
Johnson
Terpin
Sullivan
Scott
Anderson

RECEIVED
FEB 13 1979
ENGINEERING SECTION

Trans
Do Not File ☑
Return To
Bring Up
Action Respond

7950

Department of Environmental Quality
CENTRAL REGION
2150 N.E. STUDIO ROAD, BEND, OREGON 97701 PHONE (503) 382-6446

January 31, 1979

Mr. Harold Brainard
Oregon State Highway Division
Highway 97 North
Bend, OR 97701

Dear Mr. Brainard:

We have received a copy of your plans for the South Highway 97 widening project. Included is a proposed drainage system to handle storm water in the vicinity of Arthur Avenue.

At this time, the Department does not have a program addressing location of disposal wells for storm drainage. However, I appreciate receiving the notice of the plans to handle the existing drainage runoff at this location.

Sincerely,

Robert F. Free
Regional Sanitarian

RFF:dmc

Contains Recycled Materials

8950

January 25, 1979

Deschutes Rural Fire Protection
District No. 2
c/o Mr. Al Gray
Gray, Faucher, Holmes & Hurley
1044 N.W. Bond Street
Bend, OR 97701

MISC. CONTRACTS AND AGREEMENTS No. 6904

Gentlemen:

Attached for your files is a fully executed copy of an agreement for installation of emergency vehicle pre-emption devices on three traffic signals within the Bend South City Limits-Murphy Road Section of The Dalles-California Highway.

We are retaining a fully executed copy of this agreement for the Transportation Commission's files.

Very truly yours,

C. W. Read
COMMISSION SERVICES

kkr

Attachment

bc: Gerald W. Wimer (agreement attached)

8950

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Bend, Oregon 97701

January 16, 1979

FILE: 50034

FROM: John E. Holcomb
Region Traffic Engineer

TO: J. H. Versteeg
Design Engineer

SUBJECT: R/W File No. 50034, Parcel No. 4
J. M. and V. M. Wolfe
Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County

The subject parcel is for a permanent easement to install a sign. We find we can relocate the sign to an area within existing right of way and no additional right of way or easement will be needed.

Please take the necessary action to eliminate this parcel. This concerns only the sign easement, not the entire taking.

JEH:mr

cc: Harold Brainerd
L. E. George
Wil Robertson

RECEIVED
JAN 18 1979
ENGINEERING SECTION

Versteeg
Christensen
George
Olson
Terpin
Sullivan
Boon
Address
Trout
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Bring Up
Action

REFERRED TO

Beard Stoudenmayer
Cole Sample
Eriksen Watson
Hager Dorn Leu
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

Parcel 4 cancelled
revised desc. to R/W
1-26-79
Rounds

Four Un...

R.E. & LL. Hale (C.P.)
215 - 701

REED

Perm.

Perm. Ease. Sign
0.85 Ac.± Lt.
Ease. Slopes
② 0.06 Ac.±
① 0.08 Ac.±

50036

130

50

45'

5'

es

Perm. Ease. Sign
100'

+25
+35

+00

C.H.A. Comm. 5' Ex.

+25
+35
+00

Perm. Ease.

95' ±

+80

5'

④ 1075 s.f.
Perm.

Perm.

Ease.
1075 s.f.
④

Irrigation Fac.

1.1 Ac.± Lt. Slopes

Perm. Ease. 50'

+45
+55

Ease.

② 0.08 Ac.±

50037 ① 0.12 Ac.±

S 36°26'12" W

50034

① 0.15 Ac.±

② 0.15 Ac.±

Slopes

7.15 Ac.± Rt.

20'

5'

80'

⑤ 205 s.f.
Perm. Ease.
Irr. Fac.

① 0.06 Ac.±

② 0.02 Ac.± Perm. Ease. Slopes

① 0.1 Ac.± Rt.

D.A.D. Parrott
B.& P. Andrain
189-579

Parcel 5 is
Jul. 1 p.
Florida

J.M. & V.M. Wolfe
188 - 3

Old Lake Wales - Haines City Hwy.

Ridge Route

A

C

LL

Form FHWA 121 (Rev. 8-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

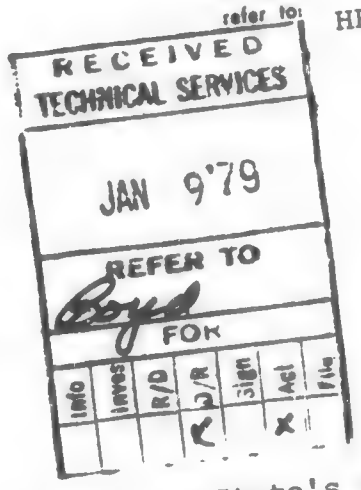
DATE: January 8, 1979

In reply refer to: HRW-OR

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Road
File 50038, Paxton

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Manager
Office of Technical Services
Oregon Department of Transportation
Salem, Oregon



NOTED
E. S. HUNTER

Our letter of August 21, 1978 requested that the State's appraiser provide support for the depreciation assigned in valuing the improvements on the subject parcel and furnish a current appraiser's certificate. This involved the appraisal of Joseph Stupfel dated February 14, 1978. Mr. Boyd's letter of January 3, 1979 indicated that the information we had requested had been furnished at an earlier date.

We have found the additional information which was furnished by Mr. Stupfel. The certificate of appraiser now appears in order. However, we are still unable to understand the appraiser's methods or reasons for assessing depreciation. The original appraisal (Paragraph 22, Explanation of Depreciation) states "Subject depreciation is value in the depreciated replacement cost with local multipliers for Bend at 1.05." In an appraisal supplement the appraiser states "Physical depreciation was applied due to physical deterioration. No functional or economic obsolescense was applied as none was inherent in the before situation." The appraiser further states "Physical depreciation was applied due to physical deterioration. Functional obsolescense was, also, applied, due to the extreme unacceptability of the architectural style and unadaptable office space area. No economic obsolescence was used, as this area is in an economic growth pattern and situation." We still believe this is an inadequate explanation of depreciation.

The appraiser has utilized the cost approach to arrive at value. When this is the only approach used, it should be adequately supported. We recognize the difficulty of supporting depreciation, but believe at least a meaningful narrative should be provided by the appraiser. Federal participation is withheld in the costs of making the Stupfel appraisal.

G. L. Green

G. L. Green

cc:
ODOT(JB Boyd)
ODOT (M Mead)
ODOT (F Lowe)

January 3, 1979

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: 50038 - Paxton
Bend S. City Limits-Murphy Rd.
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

NOTED
E. S. HUNTER

By letter dated August 21, 1978 (HRW.1-OR) you requested additional information from the appraiser, including a current Certificate of Appraiser. Additional information was submitted. However, it was deemed advisable to secure a second appraisal.

Copies of Mr. Stupfel's reply and the second appraisal as prepared by Tom Martin were transmitted to you along with the routine distribution on December 11, 1978 of our current appraisal review.

We trust that these submissions will have satisfacted the requests made in your letter of August 21, 1978.

JBB;ob
cc - F. B. Klabes
E. S. Hunter ✓
M. M. Mead
Frank Lowe

December 4, 1973

Board of County Commissioners
Deschutes County
Courthouse
Bend, OR 97701

Attention: Rosemary Patterson
County Clerk

MISC. CONTRACTS and AGREEMENTS No. 4769

Gentlemen:

Attached for your records is a fully executed copy of an agreement covering construction of the Bend SCL-Murphy Road Section of The Dalles-California Highway.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Very truly yours,

C. W. Mead
COMMISSION SERVICES

fkm

Att.

cc Gerald Wimer (agree. att.)

8950

Form 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

December 4, 1978

FILE: 4

FROM: Adele L. Egan
R/W Office Unit Supervisor

TO: H. G. Brainerd
Reg. R/W Supervisor

REGION 4

SUBJECT: File 50085

Bend SCL-Murphy Road Sec.
[redacted]
Deschutes County

Design has concurred in the recommendation that access control is adequate on the Truax Oil Co. file.

We are hereby canceling this file.

File No.	Name	Area
50085	Truax Oil, Inc.	access only

AE:mn
cc: Floyd Scott
Title
Appraisal
F. Lowe
A. Riveness

Vorstoeg
Christensen
George
Olson
Terpin
Sullivan
Scott
Anderson

RECEIVED
DEC 5 - 1978
ENGINEERING SECTION

Trout

Do Not File ☐
Return To
Bring Up ___/___/___
Action

TO: Oregon Transportation Commission

SUBJECT: Report of Actions Taken Under Delegated Authority

(1) Options or Other Documents Relating to Property Acquisition

Number	Name	Consideration
49303	Lovcik, Barbara B.	$ 5,750.00
50041	Grizzly Bear, Inc.	14,400.00
50052	Hemmingson, Brian A. et al	7,700.00
20-4.96	Wallin, Ernest E.	600.00
22-1.27W	Medford-Jackson County Airport	600.00
234-18.92W	O'Mara, Leo R.	300.00
234-19.03W	O'Mara, Leo R.	300.00
234-19.93E	O'Mara, Michael J.	300.00
234-20.20E	O'Mara, Michael J.	150.00
270-1.63N	Wilson, Lewis W.	450.00
270-2.11N	Marion, Harlan	300.00
270-2.30N	Robertson, William L.	300.00
270-2.58N	Robertson, William L.	300.00
	13 Transactions	$ 31,450.00

(2) Grant of Access to Kenneth H. Howell for an additional 35 feet access at Station 39+35 on the West side of the Grants Pass-New Hope Road Section of the Jacksonville Highway, in Josephine County. File 40511

(3) Grant of Access to Leon Swank and Walter C. Cline at Station 1538+50 on the Northerly side of the Coast Range Summit Section of the Corvallis-Newport Highway in Lincoln County. File 35374

(4) Agreement with Deschutes County covering construction of the Bend SCL-Murphy Road Section of The Dalles-California Highway. The State will design and construct the project using Federal Aid Primary Funds. The County has agreed to cooperate in the adjustment of utilities and to accept jurisdiction of certain reconstructed road connections. (Local Government)

By your duly adopted delegation order, you authorized me in my official capacity to exercise certain authority on behalf of the Oregon Transportation Commission. Pursuant to that authority and acting in accordance therewith for the Commission, I approve all actions listed above and report this action for your official records.

Dated this 29 day of November, 1978

Michael P. Hollern, Vice Chairman
Oregon Transportation Commission

APPROVED
STATE HIGHWAY ENGINEER
DATE 11/24/78

8750

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

FILE:

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

November 29, 1978

FROM: J. B. Boyd
Right of Way Manager

TO: Hal Versteeg
Head of Engineering

SUBJECT: Cancellation
File 50085 - Truax Oil Co.
Bend S. City Limits-Murphy
Road Section
[redacted] Highway
Deschutes County

Attached is correspondence and copies of documentation from Deschutes County relating to an access problem adjacent to Brosterhaus Road. This documentation affirms our previous decision to cancel this file. If both the County and the Department of Transportation view this access in the same manner, I believe that it's safe to cancel the file.

JBB:jk
attach.
cc: Dale Allen
Harold Brainerd

RECEIVED
NOV 29 1978
ENGINEERING SECTION

1/3 Versteeg
Christensen
George
Olson
Terpin
Sullivan
3 Scott
Anderson
Trout

Do Not File ☐
Return To
Bring Up / /
Action

File cancelled 12-1-78

approved 11-30-78

REFERRED TO

Board Steudenmayer
Cole Sample
Eriksen Watson
Hager Cern Leu
Return Discuss Do File Copy Due

BY FINAL DESIGN ENGINEER

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Bend, OR 97701

November 27, 1978

FILE:

FROM: Harold G. Brainerd
Regional Right of Way Supervisor

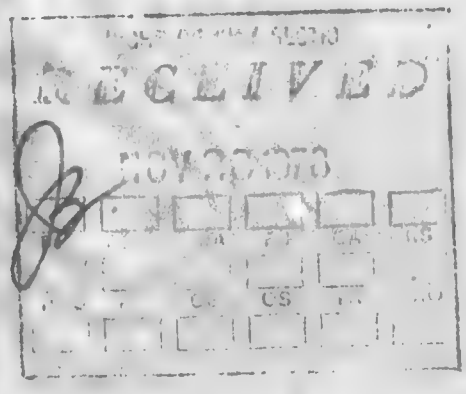
SUBJECT: File 50085 - Truax Oil Company
Bend S.City Limits-Murphy Rd. Sectio
The Dalles-California Highway
Deschutes County

TO: J. B. Boyd
Right of Way Manager

Based upon the attached letter from the Board of Commissioners of Deschutes County, it would appear that there is no likelihood of Truax Oil Company obtaining additional access. It would seem, therefore, rather than proceed with the condemnation currently on this file, we should re-evaluate our need for acquisition. Could we have a decision on this matter, after appropriate review.

HGB:eh

Attachment



DESCHUTES COUNTY

BOARD OF COMMISSIONERS
BEND, OREGON 97701

Albert A. Young | Donald T. Grubb | Robert L. Montgomery

November 20, 1978

Mr. Dale Allen
Region Engineer
Oregon State Highway Division
P. O. Box 1249
Bend, Oregon 97701

Attention: Joseph Stupfel, R/W Agent

Dear Sir:

RE: File 50085 - Trusx
Bend S. City Limits-Murphy Road Section
The Dalles-California Highway
Deschutes County

The Deschutes County Board of Commissioners concurs with the County Engineer (see copy of attached memorandum) that an access permit will not be granted into the intersection of Brosterhaus Road and U. S. Highway 97.

Sincerely,

BOARD OF COMMISSIONERS

Albert A Young
CHAIRMAN

Donald T. Grubb
COMMISSIONER

COMMISSIONER

lm
Attachment

M E M O R A N D U M

TO: Board of Commissioners, Deschutes County

FROM: Lynn C. McKibben, County Engineer

DATE: November 16, 1978

RE: Access Control; Intersection of Brosterhaus Road and U.S. 97
Reconstruction, S. City Limits - Murphy Road

Dear Sirs:

Attached is correspondence from the State Highway Division pertaining to above reference.

A search of the records, in the past, did not produce documents indicating who has authority over this portion of Brosterhaus Road. Discussions with the County Engineering Staff, the Right-of-way Agent with the State Highway Division (Mr. J. Stupfel) and with Mr. Lammert, have produced no evidence that documents exist which assign authority to this area.

I feel it would be unsafe and unnecessary for the property owner (Truax Oil) to have an access into the intersection (into the radius in the westerly quadrant indicated by the red broken line on the attached sketch). The property owner is provided "reasonable" access by the two existing accesses now existing, located approximately at stations 116+50 and 117+30 as indicated on the attached sketch.

The State Highway Division needs a statement from the County concerning our position regarding the issuance of an access permit into this intersection. I hereby request that you cause a letter to be written to Mr. Dale Allen, Region Four Engineer, Attention Mr. Joseph Stupfel, stating the position the County of Deschutes would take if the authority were clearly ours.

Sincerely,

Lynn C. McKibben
County Engineer

LCMcK:jd

CC: Bob Lammert w/attachment
Joseph Stupfel

RECEIVED

ROBERT W. STRAUB
Governor

Oregon State Highway Division

Bend, OR 97701
November 14, 1978

In Reply Refer to File No.:

Mr. Lynn C. McKibben
County Engineer
Deschutes County Road Department
1507 N. E. First Street
Bend, OR 97701

File 50085 - Truax
Bend S. City Limits-Murphy Road Section
The Dalles-California Highway
Deschutes County

Dear Mr. McKibben:

The Department of Transportation would like to acquire access control to The Dalles-California Highway on the parcel of land contained in the above file. A map is attached indicating control line and the two 35-foot unrestricted access reservations at Engineer's Stations 116+50 and 117+30, east side.

We are not certain of the jurisdiction regarding the radius area of approach to Brosterhouse Road and subject parcel. If this area is under Deschutes County jurisdiction, would the owner be granted a permit of access from this approach radius to Brosterhouse by Deschutes County Road Department?

Would you please take this matter to the Deschutes County Commissioners to clarify the County's position on jurisdiction, indicating their position regarding permit of access.

Enclosed are instruments from our files concerning past history of the general subject area.

Thank you.

Very truly yours,

Joseph Stupfel

Joseph Stupfel
Right of Way Agent

JS:eh

Enclosures

cc J. B. Boyd

Form 734-3172

Carter Oil Co.
122-406

N. 1,788,957.
Sta 864+57

Vacated
13-542

0.44 Ac.± Lt.
Accels Only

116+50

117+30

117+58.48'
N 864,850.70
E 1,788,741.05

Can't we control access by County Jurisdiction

BROSTER HOUSE RD.

SEE IR-4-26

+00

120'

45'

8" 10+05.79 P.O.T.

119.16'

EQU.

118+56.33 P.O.S. =
8"9+81.96 P.O.T.

Sign

50085

50088
① 0.07 Ac.±

50089
① 0.07 Ac.±

50087
① 0.05 Ac.±

50033
① 0.07 Ac.±

② 0.01 Ac.±

③ 0.01 Ac.±

Perm. Ease. Slope
0.06 Ac.± Rt.

W.A. Hatch
121-663
W.C. Hatch
173-661

0.08 Ac.± Lt.
(CP)

② 0.03 Ac.± Fac.

Irrigation

0.86 Ac.± Rt.

③ 0.02 Ac.±

Perm. Ease.
1.27 Ac.± Rt.
Perm. Ease. Sign

C.R. Henry
156-566

L.H. Kramer
170-139

117+78 P.S.C.

117+88.81 P.C.S.

S 44°26'00" E

② 0.21 Ac.±

② 0.2 Ac.±

⑤ 0.04 Ac.±
Perm. Ease. - Irr. Fac.

8+01.49 P.T.

"B" 7+11.00 P.I.
N 867,973.21
E 1,788,456.18

Δ = 40°55'30"
"B" 24° CR

T = 101.56

P.C.

6+09.44

21

1

8950

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Rd. Section
File 50031, Dunlap

DATE: November 21, 1978

In reply refer to: HRW-OR

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Manager
Office of Technical Services
Oregon Department of Transportation
Salem, Oregon

Right of Way Manager Boyd's letter of November 9, 1978, provided additional information concerning the depreciated value of the improvements being acquired under this file for the subject project. We have reviewed the second appraisal by E. Thomas Martin III in the amount of $35,550. While his comments concerning functional and economic depreciation are not conclusive, his opinion of value tends to substantiate Mr. Stupfel's appraisal. Based upon the documentation furnished, Federal funds may participate in a right of way settlement that does not substantially exceed the Martin appraisal.

G. L. Green

cc:
ODOT (J B Boyd)
ODOT (M Mead)
ODOT (F Lowe)

RECEIVED
TECHNICAL SERVICES
NOV 24 '78
REFER TO

9950

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Bend, Oregon 97701

November 16, 1978

FILE: 9-1951

FROM: Robert C. Pool
Region Construction Engineer

SUBJECT: [redacted]
Deschutes County
Prefix: 9-1951

TO: J. H. Versteeg
Head of Engineering

We have been doing a lot of thinking about traffic control on this project and have concluded that we should not have any interim completion times for portions of the work, but rather include the following specifications.

Contractor will maintain two paved lanes (24 ft clear) of uninterrupted traffic on Saturday, Sunday and holidays, and also on weekdays from 7:30 AM to 8:30 AM and from 4:30 PM to 5:30 PM.

At all other times the contractor will maintain two paved lanes (24 ft clear) of uninterrupted traffic, but will be allowed momentary stopping of one lane of traffic to allow contractor's equipment to enter and leave the highway.

Stopping of traffic up to five minutes will be allowed for blasting adjacent to traffic.

For cross-pipe installations two lanes (24 ft clear) of uninterrupted traffic will be maintained.

A shoo-fly with suitable gravel surface around the construction area will be limited to day-light hours.

Excavated areas in the roadway will be paved prior to putting traffic over the areas.

Wil Robertson and I will be in your office at 10:00 AM, December 4th to discuss this specification and the Preliminary Plans.

RCP:pw
cc: W.W.Robertson

(Paul has copy for our files) Art/ ob

Versteeg ✓
Christensen
George
Olson
Terpin
Sullivan
Scott
Anderson

RECEIVED
NOV 17 1978
ENGINEERING SECTION

Trout
Do Not File ☐
Return To
Bring Up ___/___/___
Action

8950

4

STATE OF OREGON

INTEROFFICE MEMO

ODOT - Traffic (DEPT.) 378-6537 (TELEPHONE)

TO: Duane O. Christensen
Fianl Design Engineer

DATE: November 13, 1978

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Bike Path Signing
Bend South City Limits - Murphy Road
The Dalles-California Highway

Bob Poole recently requested that the subject bike path signing be included as part of the construction contract instead of being done with State Forces as in the past. The area where the signs are to be installed requires blasting to install signs, due to rocks and it would be more efficient if the contractor did this work.

We concur with the request and have enclosed two copies of the bike path signing plan. The signs being used are included in the forthcoming edition of the"Manual on Uniform Traffic Control Devices", so the signs can also be furnished by the contractor.

If you concur, would you please have the bike path signing included with the other contract signing for the subject project.

L. E. George
Traffic Engineer Supervisor

DKH:cs

cc: Floyd Lacey
Jack Sullivan
Don Shaffer
D. U. Allen

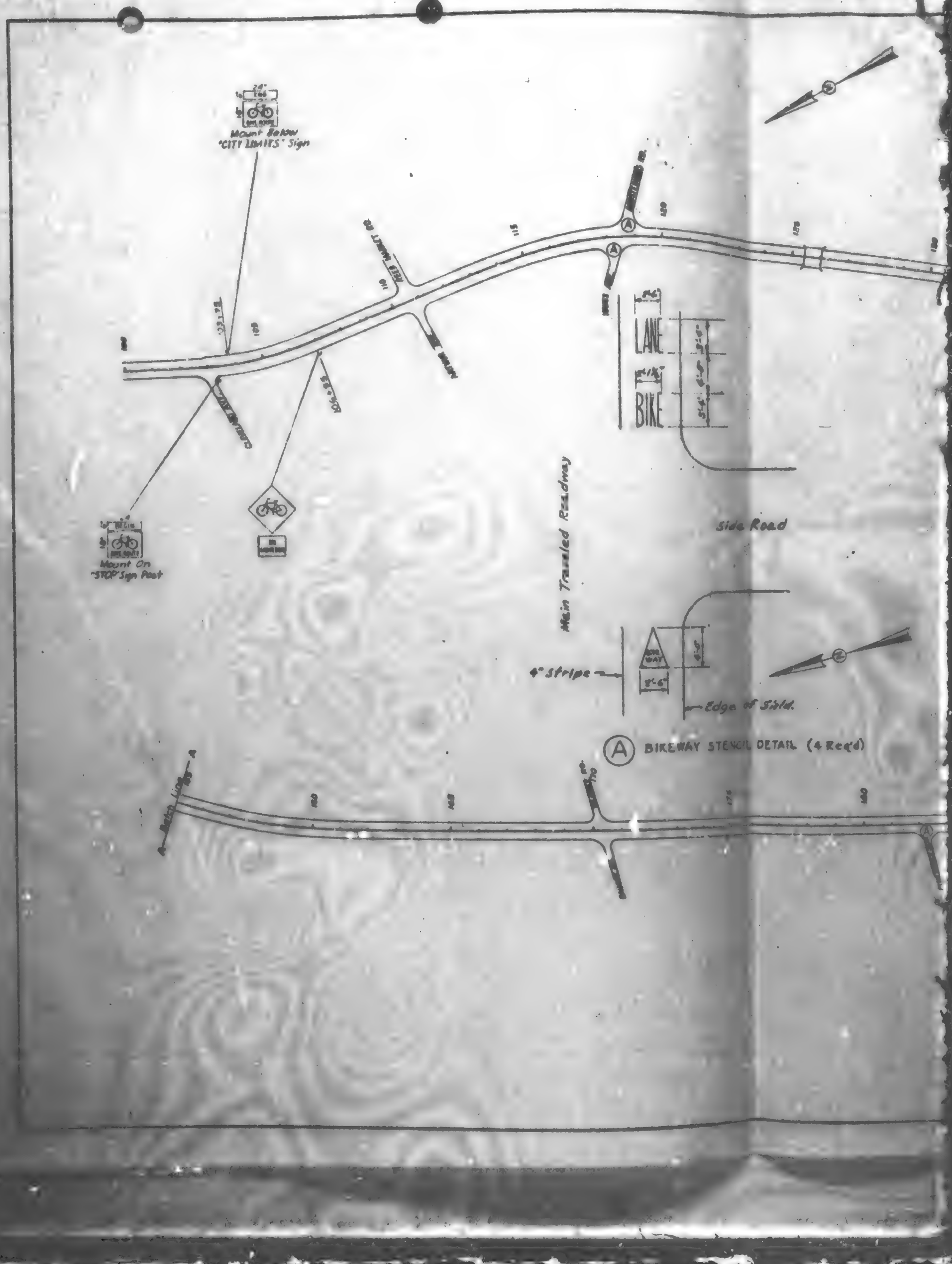
Versteeg
Christensen
George
Olson
Terpin
Sullivan
Scott
Anderson

RECEIVED
NOV 14 1978
ENGINEERING SECTION

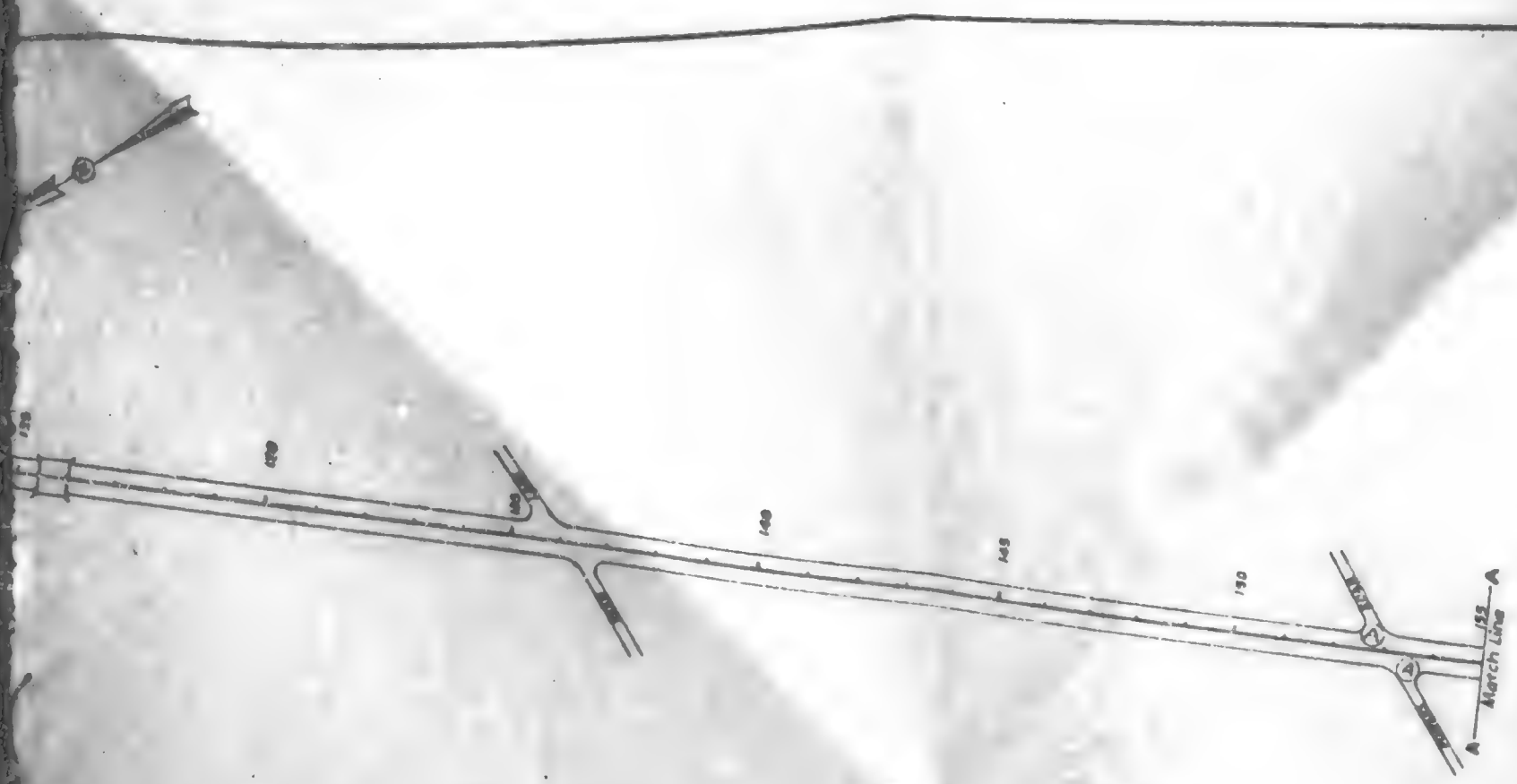
Trout
Do Not File
Return To
Bring Up ___/___/___
Action

REFERRED TO
Beard W G B Stoudenmayer
Cole Semple
Brisson 2 Watson
Light Dorn Lou
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER
1 plan retained by Beard

61-120-1207



(A) BIKEWAY STENCIL DETAIL (4 Req'd)



BIKEWAY SIGNING PROJECT

BEND S.C.L. - MURPHY RD. SEC.
THE DALLES-CALIFORNIA HWY. — DESCHUTES COUNTY

Action	Date	Signature	Title
Submitted	1-19-78		Traffic Control Engr.
Approved	2-16-78		Bicycle Route Engr.
Approved	7-21-78		Sign Engineer
Approved			Traffic Engineer
Approved			Asst. Hwy. Engr.

Lynn C. McCullough
COUNTY
10-19-78
DATE

November 9, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: File 50031 - Dunlap
Bend S. City Limits-Murphy Road
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

Pursuant to your letter of August 21, 1978 (HRW.1-OR), we asked the appraiser to submit further explanation of his reasoning. We also requested a second appraisal.

Attached are copies of the appraiser's explanation, the second appraisal, and our review. We trust this material will answer the questions posed in your letter.

MMM:ob
Attachments
cc - F. B. Klaboe
E. S. Hunter
M. M. Mead
Frank Lowe

RECEIVED
TECHNICAL SERVICES
NOV 13 '78
REFER TO
FOR
Info | Lands | H/O | D/R | Sign | Agr | File

8950

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

FILE:

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

November 3, 1978

FROM: J. B. Boyd
Right of Way Manager

TO: File

SUBJECT: Access Control
File 50085 - Truax Oil
Bend S. City Limits-Murphy
Road Section
~~The Dalles California~~
Highway
Deschutes County

Mr. Duane Christensen questioned our ability to control access on the portion of Brosterhous. It is his opinion and that of Floyd Scott that our permit loss would not give us the right to impose our control on this particular radius. I have discussed the matter with Mr. Jack Sollis and he believes that it is possible, but not without the danger of litigation.

I have asked Mr. Frank King to discuss the matter with Joseph Stupfel and to have the appraisal reviewed on the basis that Mr. Truax can obtain access on the portion which fronts on the county road. After reviewing this value, a decision will be made as to whether to proceed with the condemnation.

JBB:jk

cc: J. H. Versteeg
Dale Allen
Bob Lammert
Harold Brainerd

REFERRED TO

Board ___ Staudenmeyer ___
Colp ___ Sample ___
Eriksen ___ Watson ___
Heger ___ Dorn ___ Lou ___
Return ___ Discuss ___ Do ___ File Copy ___ Due ___
FINAL DESIGN ENGINEER

Versteeg ✓
Christensen
George
Olson
Terpin
Sullivan
Scott
Andersen

RECEIVED
NOV 06 1978
ENGINEERING SECTION

Trout
Do Not File ☐
Return To
Bring Up ___/___/___
Action

Can we control Access by County Surveyor?

117+58.48 P.O.T.
N 864,850.70
E 1,788,741.05

Carter Oil Co
122-406

Vacated pipe 13-542

0.41 Ac.± Lt. Access Only

50085

Case Sign

50' ± 95 ± 95

15' ± T

EQU. 118+56.33 P.O.S. = 8°9'+81.96 P.O.T.

113.4'

8°10+05.75 P.O.T.

BROSTERHOUS RD.

120'

SEE IR-4-26

45' ± T

50088
① 0.07 Ac.±

50089
① 0.07 Ac.±

50087
① 0.05 Ac.±

75
Deed 275-306

50033
① 0.07 Ac.±

② 0.03 Ac.± Fac.

Irrigation

0.86 Ac.± Rt.

② 0.22 Ac.± Perm. Ease. Slopes 0.06 Ac.± Rt.

W.A. Hatch
121-663
W.C. Hatch (CP)
173-661

0.08 Ac.± Lt.

③ 0.02 Ac.± Perm. Ease.

1.27 Ac.± Rt.

④ 0.13 Ac.± Perm. Ease. Slope

100

Existing

C.R. Henry
156-566

② 0.2 Ac.±

S 44°26'00" E

② 0.21 Ac.±

③ 0.04 Ac.± Perm. Ease. - Irr. Fac.

117+88.81 P.C.S.

117+11.78 P.S.C.

L. & H. Kramer
170-139

12

"B" 7+11.00 P.I.
N. 864,973.21
E 1,788,456.18

"B"
24°CR
Δ=46°05'30"
T=101.56

6+09.44 P.C.

8+01.49 P.T.

+00 +10 +20 +30 +40 +50 +60 +70 +75 +80 +90 +95

35' 40' 45' 80'

8930

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

October 25, 1978

11-2-78

FILE: 4

FROM: J. B. Boyd
Right of Way Manager

TO: Hal Versteeg
Head of Engineering

SUBJECT: Access Control
File 50085 - Truax Oil
Bend S. City Limits-Murphy
Road Section
The Dalles-California Highway
Deschutes County

I have discussed the access control problem on this particular file with Mr. E. S. Hunter. Our District Engineer in Bend is sure that there is no possibility of access along this radius and has so informed our appraisers. The negotiator has been unable to satisfactorily acquire the access control for $100, which is the appraised value. It is my thought that if the District Engineer and the Region Engineer are positive that they can control this access, there is no purpose in proceeding through condemnation action. It will be expensive and will accomplish nothing. I request cancellation of this file.

JBB:jk

cc: E. S. Hunter
Dale Allen
Bob Lammert
Harold Brainerd

REFERRED TO

Beard — Steudenmeyer
Cole — Sample
Erikson — Watson
Hager — Dorn — Lou
Return — Discuss — Do — File Copy — Due
BY FINAL DESIGN ENGINEER

10-31-78

Truax Oil does not presently have an access along this radius. Region and District are in agreement that they would not issue an access permit along the radius, because of the potential hazards it would present. I agree with Boyd that we can cancel this file and control the access through our existing police powers. DOE

Versteeg
Christensen
George
Olson
Terpin
Sullivan
Scott
Anderson

RECEIVED
OCT 26 1978
ENGINEERING SECTION

Trout

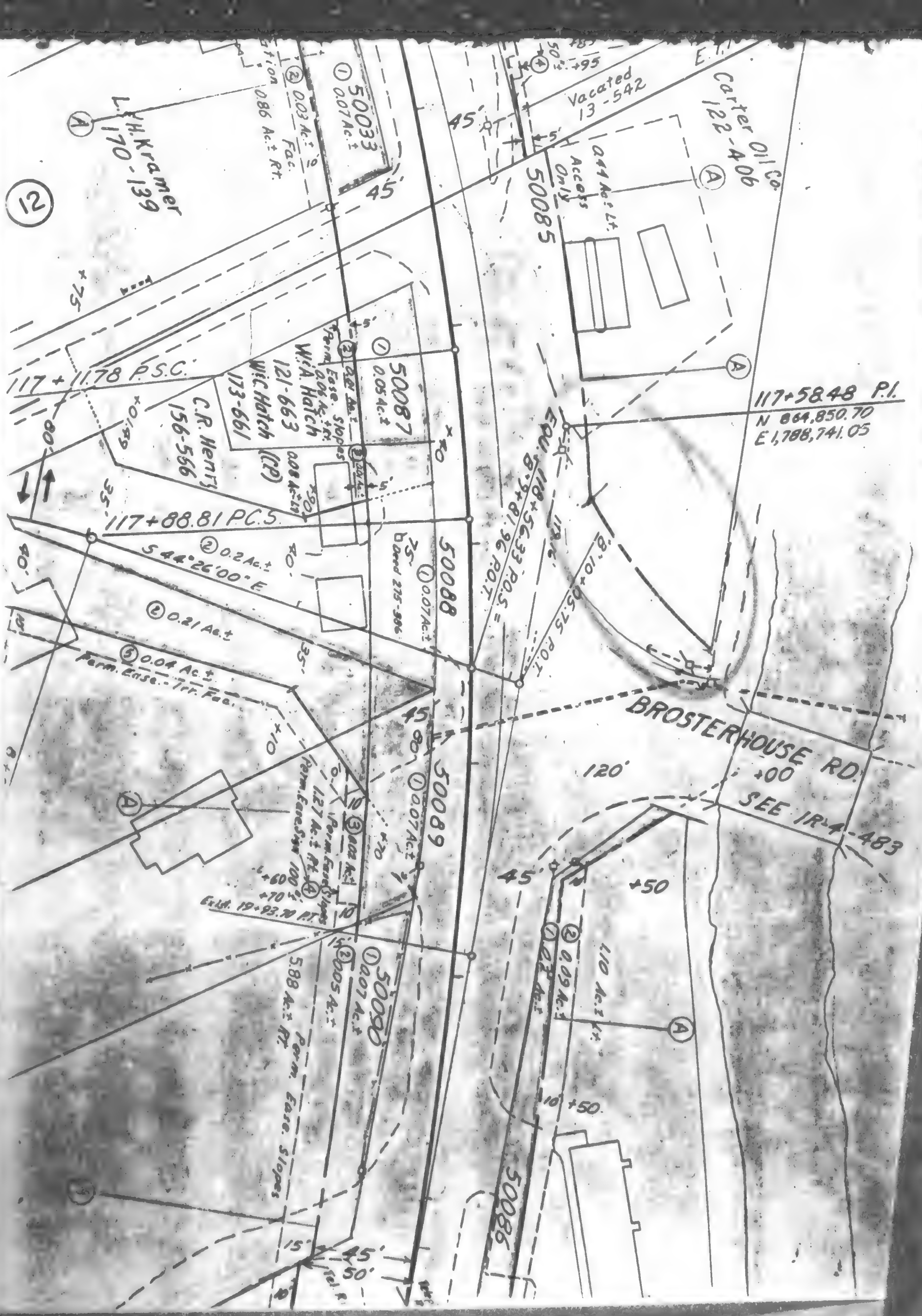
Do Not File ☐
Return To
Bring Up / /
Action

11-2-78

From all indications radius access is on County road and controlled by County. We can not control. Passed this information to Boyd for his further pursuit.

DOE.

N. & D. McCool -372
Irrigation
0.86 Ac.± Rt.
50032
50033
0.07 Ac.±
0.03 Ac.±
Fac.
45'
L. H. Kramer 170-139
12
Sloped
Perm. Ease. Sign
+85
50'±
+95
Vacated 13-542
Not Recovered. 1977
Fd. (1968)
Silver Axle Sec. Cor.
N 864,969.65
E 1,788,957.70
5
4
8
Carter Oil Co 122-406
0.44 Ac.± Lt.
Access Only
50085
117+58.48 P.I.
N 864,850.70
E 1,788,741.05
117+11.78 P.S.C.
50087
0.05 Ac.±
W.A. Hatch 121-663
Wm. Hatch (CP) 173-661
C.R. Henry 156-566
117+88.81 P.C.5.
S 44°26'00" E
0.2 Ac.±
0.21 Ac.±
0.04 Ac.±
Perm. Ease. - Irr. Fac.
50088
50089
50090
Perm. Ease. Slopes
0.27 Ac.± Rt.
0.05 Ac.±
0.09 Ac.±
0.11 Ac.±
0.17 Ac.±
5.88 Ac.± Rt.
Ex. Lt. 19+93.70 P.T.
Equ. 19+56.33 P.O.S. = 19+81.96 P.O.T.
5.75 P.O.T.
BROSTERHOUSE RD.
SEE IR 1-483
120'
+00
+50
110 Ac.±
80'
35'
40'
10'
+10
+20
+60
+70
+75


12
L. H. Kramer
170-139
0.03 Ac.±
0.086 Ac.± Rt.
50033
0.07 Ac.±
45'
Vacated
13-542
Carter Oil Co.
122-406
0.44 Ac.± Lt.
Access Only
50085
117+11.78 P.S.C.
C.R. Henry
156-566
W.C. Hatch
173-661
W.A. Hatch
121-663
50087
0.05 Ac.±
Farm Ease. Slopes
0.06 Ac.±
0.08 Ac.±
117+88.81 P.C.5
0.2 Ac.±
S 44°26'00" E
0.21 Ac.±
0.04 Ac.±
Farm. Ease. - Trf. Fac.
50088
0.07 Ac.±
Bond 215-306
Ease. 118+56.33 P.O.S. = 118+81.96 P.O.T.
118+05.75 P.O.T.
117+58.48 P.I.
N 864,850.70
E 1,788,741.05
BROSTERHOUSE RD.
+00
SEE IR 4-483
120'
50089
0.07 Ac.±
0.27 Ac.± Rt.
Farm. Ease. Slopes
100'
+60
+70
Ease. 119+93.70 P.T.
5.88 Ac.± Farm. Ease. Slopes
0.05 Ac.±
0.07 Ac.±
45'
+50
0.02 Ac.±
0.03 Ac.±
110 Ac.± Rt.
50086
15'
50'

.1979 Bend S.C.L.-Murphy 8930
.Rd. Sec. The Dalles-Cal.
.(Gr. pave, sign, & sig.) #1

C9A 6769 12-4-78
C9A 6904 1-25-79
C9A 7044 4-5-79

October 18, 1978
Salem, OR 97310

NOTED
E. S. HUNTER

Gary A. Potter, Manager
Environmental Section

Duane Christensen
Engineering Section

Bend SCL-Murphy Road Sec.
The Dalles-California Hwy.
Deschutes County

In response to your letter of October 9, 1978 regarding night work on the subject project, I don't think it is wise to amend the negative declaration to permit night work near sensitive receptors (residences, motels, trailer courts).

In general, construction at night produces enough noise and light and is sufficiently disruptive that it should not be permitted, with 2 exceptions: (1) there are no sensitive receptors in the area (along a commercial or industrial area) or (2) that the economics of night construction totally and completely outweigh the short-term local impacts of noise and light disturbance to people.

Incidentally, I understand there are other problems with night construction: quality control, inspection, crew scheduling, and safety of contractor's and ODOT personnel.

GAP:ss

cc: Dale Allen
W. E. Cole
Jack Sullivan
Tony George w/attach

NOTED
E. S. HUNTER

10-20-78

Potter, Christensen, Allen

I generally agree with Gary however summer traffic is high and the job must be analyzed on that basis keeping in mind that traffic is able to flow with no waiting 2 lane sections at the RR structures another 2 lane section should not be all that bad if it's short and lighting included.

Ed

RECEIVED
TECHNICAL SE
OCT 19 '78
REFER TO
FOR
Dale | Jack | R/D | Tony | Wayne | File

89E 0

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

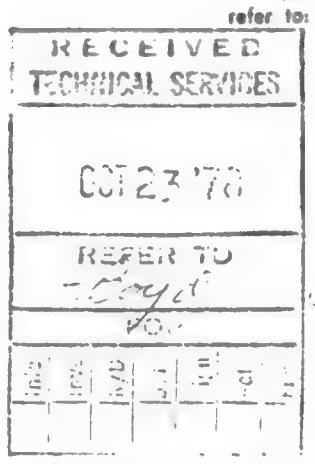
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Road
File 50061, Murphy

DATE: October 18, 1978

In reply refer to: HRW-OR

FROM : G. L. Green, Division Administrator



TO : Mr. E. S. Hunter, Manager
Office of Technical Services
Oregon Department of Transportation
Salem, Oregon

Assistant Right of Way Manager Rod Henry's letter of October 10, 1978 presented a revised appraisal on the before and after basis to support the State's right of way settlement of $35,500. Federal funds will participate in the pro rata share of the land value as established by the review appraiser in the amount of $3,820. The balance of the settlement should remain in a non-participating status because of inadequate appraisal documentation.

The before valuation by the market approach was the basis for the appraiser's valuation. The two sales utilized are not comparable. Sale #24 was adjusted from $220,000 to $115,500. The sale is a 17-unit motel. Sale #27 was adjusted from $51,170 to $109,250. It is a residence remodeled for a retail outlet.

The cost approach utilized in the appraisal does not appear realistic. The appraiser utilized Marshall Stevens Valuation Service. The appraisal report indicates "No. 3 used for reproduction cost relative to taking improvements." The Marshall Stevens manual indicates that No. 3 represents "above average cost". Quite obviously the subject building was of minimal construction. The appraiser also utilized the calculator method and selected a building that obviously is superior to the subject. Concerning depreciation, the appraiser indicates there is no functional economic depreciation. The buildings under discussion have no plumbing.

Concerning the income approach, the interest rate of 8.25% does not appear to represent the risks involved with this property, but reflects the interest rate on treasury bills, corporate securities, etc. The overall rate appears to be selected from superior properties. In the after situation of the income approach, no consideration is given to the fact that most of the commercial land will remain and is available for usage.

G. L. Green

cc:
ODOT (F Lowe)
ODOT (J B Boyd)
ODOT (Acct Sec)

8950

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Road
File 50024, Gaines

DATE: October 18, 1978

In reply refer to: HRW-OR

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Manager
Office of Technical Services
Oregon Department of Transportation
Salem, Oregon

Right of Way Manager Boyd's letter of August 30, 1978 indicated that the State's appraiser had revised his appraisal and placed it on a before and after basis in accordance with our request of April 25, 1978. This action should fulfill the requirements of the State's Right of Way Manual which calls for a before and after appraisal because of damages to the remaining property. Our concurrence with the actions taken in securing a before and after appraisal does not constitute concurrence that the appraisal is properly documented. This matter should be handled through the State's review appraisal process.

G. L. Green

cc:
ODOT (J B Boyd)
ODOT (F Lowe)

RECEIVED
TECHNICAL SERVICES
OCT 19 '78
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

NOTED
E. S. HUNTER

1950

Form FHWA 121 (Rev. 6-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

DATE: October 18, 1978

In reply refer to: HRW-OR

SUBJECT: Oregon Project F-4-2(5)
Bend S. City Limits-Murphy Road
File 50056, Meyers

FROM : G. L. Green, Division Administrator

NOTED
E. S. HUNTER

TO : Mr. E. S. Hunter, Manager
Office of Technical Services
Oregon Department of Transportation
Salem, Oregon

Right of Way Manager Boyd's letter of September 28, 1978 presented additional documentation in the form of a new appraisal review dated September 27, 1978, as well as a revised appraisal from Staff Appraiser Boehmer. In addition, Mr. Boyd's letter provided an explanation of the appraisal background. This letter was in answer to my letter of August 21, 1978 requesting an explanation of the cost to cure damages as well as information concerning a 1977 sale.

Based upon the information presented the review appraisal of $40,705 is considered acceptable as a basis for Federal participation.

G. L. Green

cc:
ODOT (J B Boyd)
ODOT (M Mead)
ODOT (F Lowe)

RECEIVED
TECHNICAL SERVICES
OCT 19 '78
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

OREGON STATE HIGHWAY DIVISION
Traffic Engineering Section
Traffic Section

AUTOMATIC RECORDER TRAFFIC COUNTS

Portable Recorder ☒ # 53 Permanent Recorder ☐

Route or Highway No. US 97 (M.P. 139.88) Station No. # 2

Location 0.02 MILE SOUTH OF REED Mkt. RD. IN BEND

Week Beginning 10-18-76

Day of Week		Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Total
Day			18	19					
Hour of Day									
A.M.	12-1			177					
	1-2			96					
	2-3			70					
	3-4			77					
	4-5			52					
	5-6			117					
	6-7			371					
	7-8			998					
	8-9			1179					
	9-10			1072					
	10-11		1066						
	11-12		1260						
P.M.	12-1		1439						
	1-2		1333						
	2-3		1282						
	3-4		1510						
	4-5		1657						
	5-6		1598						
	6-7		1166						
	7-8		874						
	8-9		612						
	9-10		571						
	10-11		357						
	11-12		253						
Automatic Recorder Total 24 Hours			19,187						
Axle Correction Factor			-587						X
Adjusted All Vehicle Total 24 Hr.			18,600	(6% to 10% Trucks)					

REMARKS Region has indicated The A.D.T. has increased 26% This past year.

W.E.C.

October 10, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: Rod Henry
Assistant Right of Way Manager

SUBJECT: File 50061 - Murphy
Bend S. City Limits-Murphy Road
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

Pursuant to your letter of September 6, 1973 (HRW-OR), the appraiser was asked to submit a before and after appraisal of subject acquisition, taking particular care to clarify the items questioned.

Attached for your review and consideration are copies of our revised appraisal and review.

We trust that these attachments will satisfy the intent of your letter, and that subject file will be fully eligible for Federal participation.

RH:ob
Attachment
cc - F. B. Klaboe
E. S. Hunter
M. M. Mead
Frank Lowe

RECEIVED
DOT OPERATIONS
OCT 10 '78
REFER TO

NOTED
F. B. KLABOE

8950 4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon
October 5, 1978

FROM: J. H. Versteeg
Engineering

SUBJECT: Project Cost
Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County

TO: E. S. Hunter
Technical Services Engineer

The Bend SCL-Murphy Road project taken to the hearing, from Station 102 to Station 210, cost $1,600,000 based on 1970 unit prices. $ 1,600,000

At the request of the Right-of-Way Section and with the concurrence and approval of the Regional Engineer and Design, the following drainage items were added.

Detention Pond	$ 99,000	
Curbs and Storm Sewer System	180,000	
	$279,000	1,879,000

Drainage costs from Cleveland Ave. to the channel were justified based on a reduction in damages to remaining properties in the right-of-way acquisition process.

Plans-in-hand review: September 1978

Additional asphalt for Leveling	$ 34,000	
Type "C" Curbs for Access Control	8,000	
	$ 42,000	1,921,000

Region recommendations: September 26, 1978

Nighttime and Cross Pipe Installations	$ 56,000	1,977,000

The unit costs inflated from 4-78 to January 1979 (the proposed letting date)	$227,000	$ 2,204,000

10-10-78
Bal — Award to contract
EJH
cc Kaiser
Mowbray.

RECEIVED TECHNICAL SERVICES
OCT 10 '78
REFER TO
FOR
Info
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The Bend SCL-Murphy Road project is programmed at $1,400,000 in the six-year program. Costs of the project could be reduced by shortening 15 stations ($150,000) and the elimination of a portion of the curb and sewer system ($80,000). I would not recommend shortening the project or deletion of the curb and storm sewers as they are necessary elements of the project.

Your concurrence in this project is requested.

JHV:jh

REFERRED TO
Beard ___ Stoudenmayer ___
Col ___ Sample ___
Erikson ___ Watson ___
Hager ___ Bean ___ Lee ___
Return Discuss Do File Copy Due ___
BY FINAL DESIGN ENGINEER

Finalize plans.
Don

Art
Paul - file copy
O.D.

1 Verstoeg ✓
2 Christensen Don
George
Olson
Terpin
3 Sullivan JWS
Scott
Anderson

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ENGINEERING SECTION

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Bend S.C.L. - Murphy Rd. Sec.
The Dalles Calif. Highway
Deschutes County

		Project Cost
Sta. 102+50 to Sta 195+00	3/17/78	$ 1,400,000-
Detention Pond	4/78	$ 99,000
Curbs, Walks & Storm Sewer Cleveland Ave to Brosterhouse Rd.	4/78	$ 95,800
		$ 1,594,800
Adding Traffic Signal (Murphy Rd)	6/2/78	$ 48,000-
		$ 1,642,800
Adding Curbs Walks & Storm Sew. From Brosterhouse Rd. to Canal	6/2/78	$ 84,000
		$ 1,726,800
Addional Asphalt Conc. for leveling	9/78	$ 34,000=
Extending Project Sta. 195+00 to Sta 210+12	9/78	$ 148,000-
		$ 1,908,800
Adding Type "C" Curb at regions request	9/78	$ 8,100
		1,916,900
Unit Cost Increase (for Jan 79)	9/26/78	$ 227,000
Night Work (addional cost)	9/26/78	$ 56,100
		$ 2,200,000

Deschutes — Old Bolles Cairt. Highway — County

		Project Cost
Sta. 102+50 to Sta 195+00	3/17/78	$ 1,400,000-
Detention Pond	4/78	$ 99,000
Curbs, Walks & Storm Sewer Cleveland Ave to Brosterhouse Rd.	4/78	$ 95,800
		$ 1,594,800
Adding Traffic Signal (Murphy Rd)	6/12/78	$ 48,000-
		$ 1,642,800
Adding Curbs Walks & Storm Sew. from Brosterhouse Rd. to Canal	6/12/78	$ 84,000
		$ 1,726,800
Addional Asphalt Conc for leveling	9/78	$ 34,000 -
Extending Project Sta. 195+00 to Sta 210+12	9/78	$ 148,000-
		$ 1,908,800
Adding Type "C" curb at regions request	9/78	$ 8,100
		1,916,900
Unit Cost Increase (Change Order #)	9/26/78	$ 227,000
Urgent Work (additional cost)	9/26/78	$ 56,100
		$ 2,200,000

8950

4

ORIGINAL SIGNED
DUANE O. CHRISTENSEN

Salem, Oregon
October 9, 1973

Duane O. Christensen
Final Design Engineer

Gary Potter, Manager
Environment Section

Bend SCL-Murphy Road Sec.
~~The Dalles-California Highway~~
Deschutes County

Dale Allen has requested that we consider allowing the contractor to: (1) install all cross pipes and, (2) excavate and place the plant mix bituminous base during the hours of 10:00 p.m. to 6:00 a.m. due to the heavy traffic and the disruption of accesses to the numerous businesses located along this section of highway.

The Final Negative Declaration dated December, 1977, on page 23 states, "In addition, construction work for this project will add to the noise of the area. However, this noise is not considered significant because it will only be temporary and because construction will be scheduled for daylight hours to keep disturbance to a minimum.".

With this statement in the final negative declaration and sensitive receptors such as motels, trailer courts and residences along the highway, is it advisable to ask for a variance or amend the negative declaration to allow night work?

Vernier ✓
Christensen
George
Olson
Tervin
Sullivan
Hunt
Addressee

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ENGINEERING
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4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

FILE: 9-1951

INTER-OFFICE CORRESPONDENCE

Bend, Oregon 97701

October 9, 1978

FROM: Richard O. Hayes
Region Utility Engineer

SUBJECT: Bend SCL-Murphy Road
The Dalles-California Highway
Deschutes County

TO: Bill Cole
Design Section

Attached is a letter from Deschutes County allowing our contractor to install a 4-inch PVC irrigation pipe on the northwest side of Hayes Avenue. The operation and the maintenance of this pipe will be the responsibility of permit holders.

ROH:mr

encl

cc: Jack Cartwright
Wil Robertson

REFERRED TO

Beard ____ Stoudenmeyer ____
Cole ____ Samuels ____
Eriksen ____ Watson ____
Meyer ____ Dorn ____ Lem ____
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BY FINAL DESIGN ENGINEER

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ROW 18-4

4

Form 81-784-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

October 2, 1978

Salem, OR. 97310

FROM: Jack M. Cartwright
Utility Engineer

SUBJECT: Roats Water Works, Inc.
Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County

TO: The Files

Attached is a memo from Richard O. Havig, Region IV Utility Engineer, and W. E. Roats regarding the installation of four 12-inch conduits to provide for future water line crossings of the subject project.

Region IV has decided that they do not want Mr. Roats installing his own conduits because of the hazardous traffic condition. They have advised Mr. Roats that the conduits could be installed by the State contractor on an extra work or price agreement basis.

I have requested Bill Cole and Jack Sills of the Design Section to place the four conduit crossings on the plan as an anticipated item to be negotiated between the State's contractor and W. E. Roats.

7 I have also requested the Specification Section to include appropriate wording in Section 105.06 in cooperation with utilities, advising the contractor that they will be approached by Roats Water Works, Inc. to negotiate for the installation of four 12-inch conduit crossings of the project.

Not to be included in specs JWS

cc: J. H. Versteeg
Jack Sullivan w/att
Bill Cole
R. O. Havig

REFERRED TO

Board ___ Stoudenmeyer ___
Co ___ Sample ___
Eriksen ___ Watson ___
Yager ___ Dorn ___ Lou ___
Discuss ___ Do ___ File Copy ___ Due ___
BY FINAL DESIGN ENGINEER

1 Versteeg
1 Christensen
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Anderson

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copy Cole

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-PERMIT- U7880

DESCHUTES COUNTY ROAD DEPARTMENT
1507 N.E. 1st
Bend, OR 97701

LIMITED APPLICATION AND PERMIT TO OCCUPY OR PERFORM OPERATIONS UPON A COUNTY ROAD

(Please print or type application information.)

APPLICANT H. & H. Bowden, U.S. National Bank
(Name) (Telephone)

South U.S. Highway 97 R/W File Nos. 50029 and 50030 Bend
(Address) (City)

Applicant hereby applies to the County Board for permission to perform the following operation upon County Road right-of-way in:

Section: 5 Township: 18S Range: 12E W.M.

TO:

☐ Construct, operate and maintain a poleline: _____ (Type)

☐ Construct, operate and maintain a buried cable of _____ (Type)

☒ ~~Construct~~, operate and maintain a pipeline of 4" Buried PVC Irrigation Pipe (Type)

The installation is shown and described on the exhibit maps or drawings attached and are made a part of this permit.

County Road Involved: Hayes Avenue (Name) _____ (Co. No.) _____ (FAS Hwy No.)

Date construction to start: February 1979 (Approximately)

GENERAL PROVISIONS:

The appropriate general provisions contained in the "Deschutes County Road Utility Permit Ordinance" as supplemented and modified by the following special provisions shall apply to this permit, and by this reference are made a part of this permit. It shall be the obligation of the applicant to obtain said general provisions from the County and to determine which of the various provisions are applicable before commencing work under this permit.

Continued on Page Two.

...D PERMIT TO OCCUPY OR PERFORM
.. A COUNTY ...AD

SPECIAL PROVISIONS:

1. A certificate of insurance is required as set forth in Article 2.300 of the Ordinance.
2. A cash deposit, or cash deposit plus Bond in the amount of $_____ is required, as set forth in Article 2.400 of the Ordinance.
3. Open cutting of the paved or surfaced portion of the County Road under Article 3.500 of the ordinance is ☐ is not ☐ permitted. If permitted, it shall be limited to those areas indicated on the attached exhibit.
4. Person in charge of protective devices in accordance with Article 2.210 of the ordinance is:

(Name) (Business Phone)

(Address) (Home Phone)

5. In case of other problems, contact:

W. W. Robertson, OSHD 382-1911
(Name) (Business Phone)

6. Exhibit maps (two) are ☐ are not ☐ waived. (See Article 4.710 of the Ordinance.)

7. Additional special provisions are ☐ are not ☐ included on attached sheet.

THIS PERMIT IS ISSUED BY THE COUNTY BOARD SUBJECT TO THE TERMS AND PROVISIONS CONTAINED HEREIN AND ATTACHED. THIS PERMIT IS ACCEPTED AND APPROVED BY APPLICANT SUBJECT TO SAID TERMS AND PROVISIONS.

APPLICATION SUBMITTED BY: H. & H. BOWDEN
UNITED STATES NATIONAL BANK OF OREGON
(Name - Please Print)

(Title) UNITED STATES NATIONAL BANK OF OREGON

SIGNATURE: H. & H. Bowden By: James W. Parr DATE: 9/22/78
James W. Parr
Assistant Vice President

NOTE: If cutting of pavement is required, Road Department must be notified as to time and date cut is to be made.

PERMIT APPROVED BY: _____
(County Board)

_____
(Title)

Effective Date: 10/6/78

BMc:kc
4/15/77
Rev: 11/77 JO

Return to R.O.H.

RCE RE RCE PLA FAE
RTE RECEIVED GEO
RUE OCT 2 1978 RDE
RSO REGION 4 RBE
ASSIGNED

October 2, 1978

Charles Plummer
Deschutes County Roadmaster
1507 NE First Street
Bend, OR 97701

RE: Bend South City Limits-Murphy Road
The Dalles-California Highway, Deschutes County

Dear Charles:

Attached is a completed permit application to operate and maintain a buried 4-inch PVC irrigation pipe, just inside of county road right of way on the northwest side of Hayes Avenue. The permit application is signed by H & H Bowden and U.S. National Bank and they will be responsible for the maintenance of the 4-inch buried pipe after a completed irrigation system is installed.

The State Highway Division plans on letting a contract to widen The Dalles-California Highway from Cleveland Avenue to Murphy Road on January 24, 1979. After the contract is awarded, the Highway Division will have its contractor install a 4-inch buried PVC irrigation pipe just inside county road right of way on the northwest side of Hayes Avenue as shown on the attached sketch. Permit of entry to construct this 4-inch irrigation pipe is requested from the County. The Highway Division contractor on this section will be responsible for the installation. H & H Bowden and U.S. National Bank will be responsible to operate and maintain.

If, after construction, the County decides to abandon this section of right of way because of the new connection of Hayes Avenue to Highway 97, the County would have to assure the permit holders that they will have a right to remain, operate, and perform routine maintenance as required to maintain 4-inch irrigation pipe.

At this time, the Highway Division is requesting the following:

(1) Permission from the County to have its contractor construct 4-inch irrigation pipe as shown on attached sketch.
(2) Approval of the attached permit for H & H Bowden and U.S. National Bank to operate and maintain 4-inch buried irrigation pipe as shown on the attached sketch.

If you have any questions, please call.

Yours very truly,

R.O.H.

Richard O. Havig
Region Utility Engineer

ROH:mr
encl
cc: Cartwright, Cole, Robertson

...TURPIKE
...S-CALIFORNIA
DESCHUTES COU...

FED. ROAD Div. No.	STATE	PROJEC NUMBE
10	OREGON	

5°C.R.
TΔ 28°51'05"
Ts 546.70'
2-500' Sp.
S 12°30'
a 1.0

25 A Typical

8" Water

"B" 9+81.9 P.O.S.
"B" 8+56.33 P.O.S.

+50 Gravel
+30 Asph.
30'
30'

ROSTERHOUSE RD

28
55' R.
Drain
CG-1
6"
Md 2-12
6" Drain
50' R.
+50

A HWY
45
4" Water
117+88.81 P.C.S
Δ 12°-12'
27
3
3
"B" 10+05.75 P.O.T.

Conc.
24" Sew.
"CG-2"
45
+40
6" Drain
75' 24" Sew.
4" Drain
80'
"CG-1"
Δ 12°-88'
Ease.
Ease.
23
29
50' R.
+90
5'
+70
25
"CG-1"
50' R.
10'
10'
35'
40'
+10
+60
+70
14'
16'
+15
27
2
10
Conc.
W.

HAYES AVE
117+11.78 P.S.C.
"B" 7+73 P.O.C.
30' R.
101.39
30' R.
35'
12'
12'
S 44°26' E
Ease.
Gravel
"B" LINE
(For Profile, See Shee

2-11 200 feet
4" Burried PVC
Pipe

25
6
7
8
4
+75
80'
7
55' R.
40'
10'
9
"B" 8+01.4
35'
+00
"B"
24° C.R.
=46°05'30"
=101.56'

a 1.0

8" Water

"B" 9+81.9 P.O.S.
118+56.33 P.O.S.

+50 Gravel

+30 Asph.

ROSTERHOUSE RD

A H.W.Y.

4" Water

117+88.81 P.C.S

12"-122'

Conc.

24" Sew.

"CG-2"

6" Drain

"CG-1"

18" C.M.P.

12"-72'

"B" 10+05.75 P.O.T.

Ease.

"CS-1"

12"-88'

75'

24" Sew.

4" Drain

80'

50' R.

HAYES-AVE

117+11.78 P.S.C.

"B" 7+73 P.O.C.

S 44° 26' E

"B"

24° C'R

Δ = 46° 05' 30"

T = 101.56'

"B" LINE

(For Profile, See Sheet

"B" 8+01.49

"B" 6+09.4 P.C.

Installed 200 feet of 4" Burried PVC Pipe

200' V.C.

12"

Gravel

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

HIGHWAY DIVISION

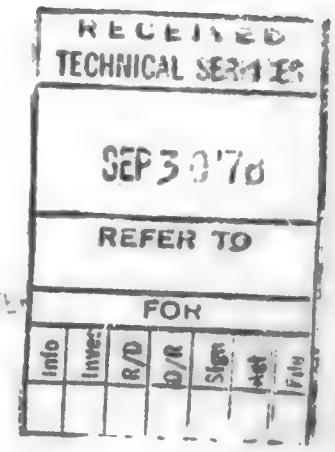
TRANSPORTATION BUILDING, SALEM, OREGON 97310

September 28, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: for J. B. Boyd
Right of Way Manager

SUBJECT: File 50056 - Meyers
Bend S. City Limits-Murphy Rd.
The Dalles-California Highway
Deschutes County
Project F-4-2(5)



By letter dated August 21, 1978 (HRW.1-OR), you questioned the application of a cost to cure item in our determination of just compensation for this acquisition. You further requested that the appraiser discuss the sale of subject property.

The appraiser has submitted two revised appraisals to document his before and after values. Unfortunately, while the before values are clearly explained, the complexity of comparing costs to purchase, costs to relocate and costs to cure resulted in an unclear picture of the after situation. The reviewing appraiser has discussed the matter of damages to the remainder with the appraiser. Both are of the opinion that without providing for the reestablishment of the service station operation, the remaining service station improvements are damaged a minimum of 40%. The reviewing appraiser has therefore set forth the pertinent elements for comparison. Value of the taking without cost to cure is shown by our current review to be $48,900. Value using cost to cure, $40,750.

The appraiser has expanded on his discussion of the sales of subject; and his reasoning appears logical.

We trust the attached revised appraisal, appraisal review and the foregoing will adequately answer the questions posed in your letter. While it is believed that the appraisal format could have been presented more clearly, it is also believed that the basic facts as shown in the review sustain the State's determination of just compensation.

The subject property has been optioned for $42,340. This is $1,590 more than our current review (less than 4%). In view of the complexity of this acquisition, this increase is considered to be insubstantial. We therefore would appreicate your early reply.

JBB:ob
Attachments
cc - F. B. Klaboe
E. S. Hunter
M. M. Mead
Frank Lowe

8950 4

FORM 81.734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

September 18, 1978

FROM: W. E. Cole
Design Engineering Supervisor

SUBJECT: Bend SCL-Murphy Road
The Dalles-California Highway
Deschutes County

TO: MEMO TO THE FILES

Art — O.b.

A plans-in-hand review was held September 13 and 14 on the subject project in Bend.

The following comments were made:

TYPICAL SECTION

1. Bill Cole asked if a 2 inch minimum asphalt concrete wearing course (overlay) was warrented. Region indicated that the 1-1/2 inch as shown was sufficient due to the quality and condition of the existing pavement.

2. Region requested that plant mix bituminous base be specified rather than the treated base, which would give the contractor the option to use cement treated base. The high volume of local traffic that has to cross the stage construction surfacing would warrant the P.M.B.B.

3. The estimate allowed 1 inch over the existing pavement to patch and level. From Sta. 102+50 to Sta. 132+00 the horizontal alignment (reversing curves) when constructed was not properly superelevated and the grades as designed (to match existing properties as near as possible) will require additional tonage of asphalt to properly bring this section up to grade. Final Design will compute this additional quantity and revise the estimate.

PROJECT LIMITS

Region requested the project limits be extended south of Murphy Road to Sta. 210+00 as originally proposed. Dale Allen said the southerly limits of commercial zoning stopped at approximately Sta. 210+00 and private commercial development is expected to be on going on both sides of the highway to these limits by the time this project is awarded. The original proposal carried 5 lanes to Sta. 203+00 and tapered to 2 lanes at Sta. 210+12.64. Harold Brainerd, Right of Way Supervisor, said that the required right of way has been cleared. Allen will follow up with a letter requesting funds to extend the project. The additional cost is estimated to be $93,000.00 which is approximately 5% of the estimated cost.

CONSTRUCTION

Fifty feet of guardrail will be added at the southwest corner of the Central Oregon Irrigation Canal structure.

The uncurbed section south of Sta. 126+00 will require the installation of Type "C" curb at the edge of the shoulder or future gutter line to control access between the numerous road approaches on both sides of the highway where the finished grade is approximately flush with the existing properties. After a field review of this problem Region has identified locations and recommend approximately 3,000 lin. ft. of Type "C" curb, the longest run will be 250+' and at these locations a one foot break in the curb will provide the necessary drainage where required. To protect the Type "C" curb a one foot earth berm will be constructed behind the curb.

DRAINAGE (DETENTION POND AND STORM SEWER)

1. Bob Lammers and Dale Allen requested that the Hydraulics Unit study the constant problem of sanding material (cinders) plugging the storm sewer manholes and catch inlets. Bob said due to around-the-clock sanding operations two to three weeks pass before the cinders entering the drainage system can be cleaned out. Their main concern is protecting the detention pond from silting up during this period. A clean-out structure that could be easily cleaned with a backhoe could be introduced into the 30 inch outfall sewer approximately 250 feet down Arthur Avenue to collect the sanding material before entering the detention pond drain wells. Dick Lenz is reviewing this problem.

2. The drain wells in the detention pond will be separated into three separate items.

   a. 8-inch drain wells, 0'-100' deep.

   b. 8-inch drain wells over 100' in depth.

   c. 8-inch steel well casings 50' for each drain well.

   For further details on drain wells, see Specifications Section of this memo.

UTILITIES

1. Roates water has requested an additional four 12 inch conduits for future water pipe crossings of Highway 97 at an estimated cost of $12,000.00. These will be added to the contract plans when Havig gets okay from Roates on cost. Dick indicated that all of the pertinent utilities have been contacted.

2. The irrigation ditch on the east side of Highway 97 from Hayes Avenue to Arthur Avenue has been enclosed in a 4 inch P.V.C. pipe. From Arthur north to Sta. 102+50 some of the ditch will be enclosed in a pipe and others will be eliminated. Dick Havig will send this information to Final Design.

3. Harold Brainerd will send in the irrigation easements that are to be cancelled to Floyd Scott.

SPECIFICATIONS

1. All cross pipe installation and surfacing construction to be performed between 10:00 p.m. and 6:00 a.m.

2. Region requested that the driving surface during stage construction to be asphalt not aggregate.

3. This project will be set up for two construction seasons and the specifications will indicate that one side of the highway construction shall be completed up and through the asphaltic concrete base course in the first season.

4. The top 18 inches of shoulder aggregate on the uncurbed section shall be free draining material.

5. Material Source -- Region has requested the scalping specification be the same as used on the "Glen Baker Road-Lava Butte Section" and the drain well specification be the same as used on the "2nd Street-South Railroad Boulevard (Redmond) Section".

6. The material from the borrow source shall be specified as Granular Free Draining.

7. Testing of the drain wells shall be "As Directed By Engineer".

Ltr to Potter requesting review 9-8-78 Doc

Discussed with Dale Allen 10-6-78. with curbing proposed on Pg 2. This should allow for improved drainage. Should create maint. Prob. in this instance. Doc

WEC:ab
cc: Dave Carter, FHWA
Jack Sullivan
Dale Allen
Will Robertson
Bob Lammert
Harold Brainerd
Dick Havig
Dick Lenz
Bill Beard

1/2 Verstoep Doc
1/2 Christensen
Georgs
Olsen
Terpin
3 Sullivan JWS
Scott
Savage

RECEIVED
SEP 19 1978
ENGINEERING SECTION

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FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION
INTER-OFFICE CORRESPONDENCE
Bend, Oregon 97701
September 14, 1978

FILE: 9-1951

FROM: Dale Allen
Region Engineer

TO: J. H. Versteeg
Design Engineer

SUBJECT: Request for Project Extension
Bend S.L.-Murphy Road
Prefix No. 9-1951

At the plans-in-hand review of this project it was the consensus of those involved that the south project limit should be extended from Sta. 195 to 210 (1500 feet). The reasons to support this request are as follows.

Zoning for the south end of the project is commercial (highway) on both sides of highway to near Sta. 210. Beyond that station, it is commercial only on the west side. Development is planned for this area according to Right of Way.

At Sta. 210, we begin controlled access and can control future channelization.

Estimated cost is $93,000 for construction.

Right of way is being acquired and will pose no delays or extra costs.

Design has been prepared to Sta. 210.

Turning movements on the horizontal curve and grade will be provided with refuge lanes.

Transition will be on long tangent.

Because of the above reasons, I would recommend the project be extended if funds are available.

O.K. DAC

DA:mr

cc: Wil Robertson
Harold Brainerd

REFERRED TO
Beard — Stoudenmeyer
Cole — Sample
Eriksen — Watson
Heger — Dorn — Lou
Return — Discuss — Do — File Copy — Due
BY FINAL DESIGN ENGINEER
Add to Project.
D.C. 9/18/78

Versteeg ✓
Christensen DAC
George
Olson
Terpin
Sullivan
Scott
Savage

RECEIVED
SEP 15 1978
ENGINEERING SECTION

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Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

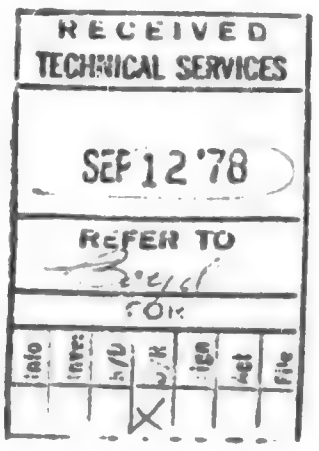
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: Sept. 6, 1978

In reply refer to: HRW-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Road
Appraisal - File No. 50061, Murphy

FROM : G. L. Green, Division Administrator



TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Dept. of Transportation

A review has been made of the State's appraisal of $35,550 covering acquisition of 0.05 acre in fee plus 0.02 acre of permanent easement. The acquisition includes a commercial building with 2021 sq. ft. The appraisal is not adequately documented as a basis for federal participation in the right of way settlement of $35,500. Please place the amount of $35,500 in a non-participating status. Our analysis indicates:

1. The appraiser used the income approach to arrive at a building value of $31,472.60. Net annual income was capitalized and from this amount was deducted the "location value of land". It appears the land area utilized to calculate land value was 4,689 sq. ft. which area would barely contain the commercial structures and would not provide for circulation around the buildings. We question the minimal land size utilized in the income approach.

NOTED
E. S. HUNTER

2. The annual net income of $5097.25 was capitalized at 13% which appears to be the interest rate. There is no indication that any allowance was made for recapture of investment which according to the appraiser's statement is less than 15 years.

3. The interest rate of 13% is a built up rate and is not supported with any market data.

4. There are no market sales of properties to support the improvement value.

5. There is no cost approach which would indicate the cost new of the subject improvement. In paragraph 29 it is indicated the depreciated replacement cost is $15.50 per sq. ft. According to the appraisal the remaining economic life of the building is less than 15 years. Comparison with a building representing superior construction, under File 50031, indicates a depreciated replacement value of $13.92 per sq. ft. versus the subject's $15.50.

A memorandum in that file indicates a builder would construct the building at $17.00 per sq. ft.

6. Field inspection indicated the improvement represented minimum construction. It does not contain plumbing or built-in heating. The improvement suffers considerable physical and functional depreciation.

If additional supporting data can be provided we will be happy to review our position regarding federal participation.

G. L. Green

cc:
Mr. J. B. Boyd, R/W
Mr. M. Mead, R/W
Mr. F. Lowe, R/W
Highway Acctg.

August 30, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: File 50024 - Gaines
Bend S. City Limits-Murphy Road
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

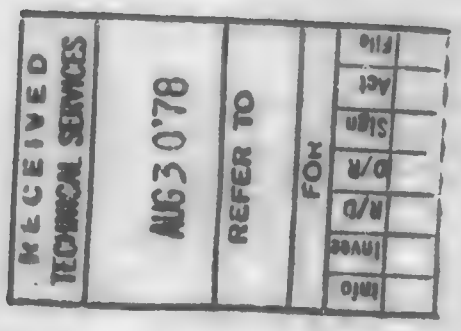
NOTED
E. S. HUNTER

Pursuant to your letter of April 25, 1978 (HRW-OR), the State's appraiser revised his appraisal to a before and after basis.

Copies of his revision and our May 12, 1978 review were routinely distributed to you on May 16, 1978.

We trust that the foregoing has adequately answered your request; andthat subject file is thus fully eligible for Federal participation.

JJB:ob
cc - F. B. Klaboe
E. S. Hunter
M. M. Head



8950

August 29, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: File 50017 - Rosenthal (Casper)
Bend S. City Limits-Murphy Road
The Dalles-California Highway
Deschutes County
Project F-4-2(5)

Pursuant to your letter of August 16, 1978, we asked the appraiser to supply the requested information.

Mr. Neil Boehmer replied by Inter-office Communication dated August 21, 1978 to advise that there have been no sales of subject property in the last five years. "No" should therefore have been checked at the bottom of Page one. "None" should have been inserted in Paragraph 26.

The State's file copy of the appraisal has been noted accordingly.

We trust the foregoing will answer your inquiry adequately.

JBB:ob

cc - F. B. Klaboe
E. S. Hunter
M. M. Mead

NOTED
F. B. KLABOE

RECEIVED
DOT OPERATIONS
AUG 29 '78
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

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Form 81-784-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

August 23, 1978

FROM: Donald E. Shaffer
Bicycle Route Engineer

SUBJECT: Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County

TO: L. E. George
Traffic Engineer

Adrian Olson
Preliminary Design Engineer

Please sign the shoulders of the subject project as bike lanes. Pavement stencils at appropriate locations, a BEGIN BIKEWAY and END BIKEWAY sign on both sides and a few warning signs directed at motorists would seem ample to me.

Until further notice, we are letting the 4-inch fog line suffice for bike lane striping.

DES:mc

O'Childs

REFERRED TO
2 Heard W&B Stoudenmeyer
1 Cole W&C Sample
Eriksen Watson
Hager Dorn Leu
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

RECEIVED
AUG 24 1978
ENGINEERING SECTION

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Form FHWA 121 (Rev. 8-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: August 21, 1978

In reply refer to: HRW.1-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Rd.
Appraisal File No. 50038

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Dept. of Transportation

This property is utilized as a service station operation. The building, in addition to housing the service station office, contains a two-bedroom apartment.

Because of the small size of the remainder, the utility of the property will be reduced to a residential rental.

The appraiser has relied entirely on the cost approach to value the improvements in both the before and after situation. His methods and reasons for assessing the various types of depreciation are not set out in either instance.

An outdated appraiser's certificate was used and it does not contain an offer for the owner to accompany the appraiser.

Please have the appraiser provide support for the depreciation assigned and furnish a current appraiser's certificate.

G. L. Green

cc:
Mr. M. Mead, R/W

RECEIVED
TECHNICAL SERVICES
AUG 24 '78
REFER TO
FOR
R/D
D/R

Form FHWA 121 (Rev. 8-72)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100

DATE: August 21, 1978

In reply refer to: HRW.1-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Road
Appraisal - File 50031, Dunlap

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Department of Transportation

The appraiser has relied entirely upon the cost approach to value the improvements on this parcel. Because of a lack of comparable sales for this type of building the cost approach is deemed applicable.

He has assigned 18% physical depreciation but no functional or economic depreciation. The buildings are 21 years old and he states that, "Without remodeling they would begin to to take on rapid functional and economic obsolescence after 25 or 30 years."

It seems a typical investor would take into account the fact that, without some amount to be spent for remodeling, his investment would rapidly depreciate 4 to 10 years hence.

Please have the appraiser explain his reasoning for not assessing an amount for functional and economic depreciation.

G. L. Green

cc:
M. Mead, R/W

RECEIVED
TECHNICAL SERVICES
AUG 22 '78
REFER TO
Boyd
FOR
Info | Invest | R/D | R/W | Eng | Const | Fin
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Form FHWA 121 (Rev. 8-72)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: August 21, 1978

In reply refer to: HRW.1-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Road
Appraisal - File 50056, Meyers

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Dept. of Transportation

The gasoline service station operation on this property will have to be modified to some extent in order for it to be functional in the "after" situation.

The appraiser estimated the "before" value of the station is $45,000 and that it would be damaged 50% without modification. Neither figure is supported in the appraisal; moreover, the appraisal indicates the 50% damages would be $27,500. If the station is, in fact, damaged 50% the resulting figure would be $22,500 (50% x $45,000).

The property sold in 1977 but the appraisal contains no analysis of the sale nor an explanation as to how it relates to present market value.

In order that a meaningful comparison can be made between the cost to cure and the amount of damages without cure, please have the appraiser provide support for his "before" value of the station as well as the damages resulting without cure. Also, please have him provide some discussion of the 1977 sale.

NOTED
E. S. HUNTER

G. L. Green

cc:
Mr. M. Mead, R/W

RECEIVED
TECHNICAL SERVICES
AUG 22 '78
REFER TO
Boyd
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Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: August 16, 1978

In reply refer to: HRW.1-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Rd.
Appraisal File No. 50070 - Callahan

FROM : G. L. Green, Division Administrator

NOTED
E. S. HUNTER

TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Department of Transportation
Salem, Oregon

The main activity on this property is a gasoline service station operation. The right of way acquisition takes the pump island and there is insufficient clearance between the station and the new right of way line to relocate the pump so the station has lost its functional utility as such and is severely damaged.

Gasoline is stored in five underground tanks and the appraiser has considered them to be personal property. Because of their buried nature they are part of the real property. If the station is functionally damaged, it follows that the tanks would also suffer some damage for which the owner should be compensated.

Please have the appraiser revise his appraisal to reflect the additional compensation.

G. L. Green

cc:
Mr. J. B. Boyd, R/W
Mr. M. Mead, R/W

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AUG 16 '78
REFER TO
Boyd
OR
Info | Invest | R/D | D/R | Agr | Acq | File
| | | | X | | X | |

Form FHWA 121 (Rev. 8-72)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: August 16,1978

In reply refer to: HRW.1-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Road
Appraisal File No. 50017, Rosenthal (Casper, C.P.)

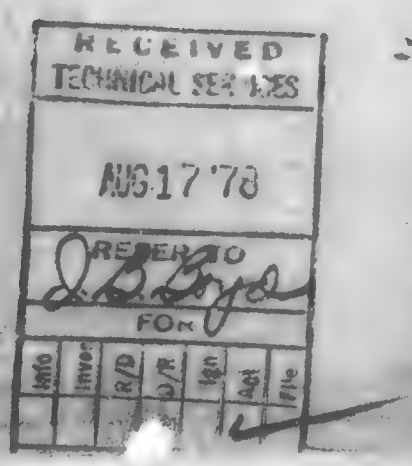
FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Dept. of Transportation
Salem, Oregon
Attn: Mr. J. B. Boyd, R/W Mgr.

The appraisal of this property is silent as to the presence or absence of a 5-year sales history. Please have the appraiser provide this information.

G. L. Green

cc:
Mr. M. Mead, R/W



Return to R.O.H.

4

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ASSIGNED
1 Versteeg
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George
Olson
Terpin
Sullivan
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August 4, 1978
RECEIVED
AUG 18 1978
ENGINEERING SECTION

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Bring Up
Station

Jim Fisher
Pacific Power and Light Company
818 NW Wall Street
Bend, OR 97701

RE: Bend South City Limits-Murphy Road, The Dalles-California Hwy.
Deschutes County
Utility Adjustments

Dear Jim:

The area provided for power line relocation on this section is a 3-foot distance in back of the sidewalk area to the right of way line. This means that the inside face of all power poles will be set three feet from the right of way line. If 2-foot diameter poles are used, this will allow for a 2-foot cross arm from the center of the pole to stay within the highway right of way.

At this time, we are not planning any utility easements on this project.

Our right of way negotiations are at a point that if additional distance is required for utilities, it could very possibly delay this project. Therefore, we are asking that you design your relocation to stay within the proposed right of way limits on this section. If for some reason there might be a few special cases where an overhang easement is needed, we will try to get this for you.

I need to know as soon as possible if there would be any problem in complying with the above and also I would need the locations, if any, that an overhang easement will be needed.

Your earliest reply on this would be appreciated. If you have any questions on this, please call.

Yours very truly,

Richard O. Havig
Region Utility Engineer

ROH:mr

cc: Jack Cartwright
Wil Robertson
Harold Brainerd

cc Duane Christensen 3 Four-years info
Design Pallin

5750 C 6-1-77 O 4

FORM 81-734-3030-X

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

FROM: A. J. Viducich

SUBJECT: File No. 50101
Bend South City Limits-
Murphy Road Section
The Dalles-Calif. Highway
(Between Sta. 101 and 117)
Deschutes County

TO: Memo to File

Rod Henry, Milner Mead, Floyd Scott and I met yesterday to discuss what effect the original highway right of way has on the new right of way being acquired.

From File 50101, it appears that the original highway was established by county court order dated November 5, 1920, and that the highway as it exists today was established by order dated June 19, 1925.

Apparently property owners have since June 19, 1925 utilized and developed the area outside the existing right of way which had been in the original right of way and it would be difficult today to claim that all of the original right of way is still in the public. In view of this, it has been decided that ORS 368.540 should be given a liberal interpretation. ORS 368.540 provides that where a county road or highway is established by county court resolution, "the final order shall vacate all parts of the old road or highway not included within the limits of the new road." The Dalles-California Highway was originally as well as presently established by county resolutions as was normally done prior to the time the Highway Commission was created. Because of this, it is felt that ORS 368.540 should apply and that the original right of way outside of the existing right of way should be considered vacated by the final order entered by the Deschutes County Court on June 19, 1925.

Floyd Scott advised us that the notes on their descriptions regarding the original right of way were informative and shouldn't have been included in the options. The notes were added to the descriptions because of the uncertainties regarding the effect of the original right of way on the right of way established by county court order dated June 19, 1925. Rod Henry feels that the options should be either retyped or the notes obliterated before negotiating with the property owners. Floyd Scott assured us that otherwise the descriptions are or will be made correct.

AJV:jb
cc: Rod Henry
Jack Sollis
Floyd Scott
Milner Mead
Adele Egan
Harold Brainerd

9 desc. revised slightly, no change of area; files returned to R/w 6-13-78.

NOTED
FLOYD O. SCOTT
6-14-78

Form FHWA 121 (Rev. 5-73)

GENERAL FILES

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: April 25, 1978

In reply refer to: HRW-OR

SUBJECT: Oregon Project F-4-2(5)
Bend So. City Limits-Murphy Rd. Section
File 50024, Gaines

FROM : G. L. Green, Division Administrator

NOTED
E. S. HUNTER

TO : Mr. E. S. Hunter, Mgr., Technical Services Br.
Oregon Department of Transportation

The State's appraisal dated March 13, 1978, and review appraisal dated March 27, 1978, in the amount of $11,175 includes $4,615 for encroachment damages. The appraisal was performed on a taking only basis which is not in accordance with the State's Right of Way Manual, Section 4.075 nor is it in accordance with Appraisal Supervisor M. Mead's memorandum to appraisal supervisors dated February 9, 1978.

It is generally acknowledged that the before and after appraisal is superior to the taking only approach in estimating damages or benefits to remaining property. As a basis for federal participation, the appraisal should be made on a before and after basis in accordance with the State's approved Right of Way Manual.

G. L. Green

cc:
J. B. Boyd, R/W Mgr.
M. Mead, R/W
Acctg. Section

RECEIVED
TECHNICAL SERVICES
APR 27 '78
REFER TO
Boyd
FOR
Info | Invest | R/D | D/R | Sign | Rel | File

Have you changed your appraisal basis?

8950

STATE OF OREGON

INTEROFFICE MEMO

4

TO: Mr. Duane O. Christensen
Final Design Engineer

FROM: Donald C Backstrand
Mr. J. E. Backstrand
Supervising Structural
Design Engineer

DATE: February 17, 1978

SUBJECT:

Bend SCL-Murphy Road Section
The Dalles-California Highway
Deschutes County
Bridge 1134A

The following are recommendations for overlaying the bridge within the limits of the above project:

Bridge 1134A - Central Oregon Canal

1. Remove existing A.C. wearing surface (3" average depth).	=	
2. Place Class "C" leveling course.	=	1 "
3. Place waterproofing (asphalt-rubber chip seal/polyester fiber A.C. option).	=	1/2"
4. Place new A.C. wearing surface.	=	1 1/2"
Total A.C. on bridge		3 "

KA:dh

cc R. C. Pool
George Hopkins
Jack Sullivan

REFERRED TO
Dorn
Daugherty
Whitsell
Lee
Hogue
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Da Rita Curry Doc.
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BY FINAL DESIGN ENGINEER

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1 copy Sullivan
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81-125-1367

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U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJ. F-4-2(5)

E PROJECT NO. See Below

COUNTY NAME Deschutes

PROGRAM NO.

ITEM NO. 80117

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

TO:
Mr. F. B. Klaboe
Chief of Operations, DOT
State of Oregon
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	1-18-78	Primary 4	Primary 4

GENERAL LOCATION:
"Bend South City Limits - Murphy Road Section"

GENERAL DESCRIPTION OF WORK:
Right of Way Acquisition

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRLIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☐ OTHER (Specify)

☒ ACQUISITION OF RIGHT-OF-WAY

☐ CONTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's 1-6-78 you are now authorized to proceed with the actual acquisition of right of way as outlined on R/W Map 9B-16-1.
TEC NTE $1,026,732 - Federal Funds $880,900.
Also, as requested, the December 28, 1977 relocation plan is approved.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
1-20-78	G. K. Gassner	for Division Administrator

FORM FH-1240 (REV. 8-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

8950 4

Salem, Oregon
January 17, 1978

J. H. Veratsag
Head of Engineering

J. B. Boyd
Right of Way Manager
BUILDING

Bend S.C.L. - Murphy Rd.
Section
The Dalles-California Hwy.
Deschutes County

Attached are the last 3 Files (11 Parcels) and an authorization for the subject project.

File 30048 is near Station 147+00 and Files 30088 and 30089 are at the Hayes Avenue connection near Station 118+00.

R/W prints will be sent to your office tomorrow.

[illegible]
[illegible]
[illegible]

[illegible]

8950

NOTED
E. S. HUNTER

January 16, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: J. B. Boyd
Right of Way Manager

SUBJECT: Oregon Project F-4-2(5)
Bend SCL-Murphy Road Section
Deschutes County

REFERENCE: HRW-OR

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TECHNICAL SERVICES
JAN 17 '78
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Although the relocation plan submitted for your review and acceptance meets your requirements as set out in FHPM, Volume 7, Chapter 5, Section 1, 12(b), you have requested we provide you with additional information. This letter will accomplish your request.

Question #1 - Lead Time. The lead time estimated by our regional people to carry out the entire right of way phase of this project is one year. The time considered necessary to complete an orderly and humane relocation of the residential displacees is six months as indicated in our report.

Question #2 - Location and nature of business displacements. The following businesses will be displaced.

Eng. Sta. 113+55R	"Power clean," a residential and commercial cleaning service.
Eng. Sta. 113+85R	"Mobile Home Specialists," providing services in the repair of small mobile homes and RV's.
Eng. Sta. 135+00R	"Gas Well Service Station." Included in this acquisition is a rental unit occupied by Mr. and Mrs. Walter Hughes.
Eng. Sta. 168+00	"CB and TV Repair." Sales, installation and repair of CB's and TV's.

Few problems have been identified. A problem common to all of the displaced businesses is the need to locate a replacement site.

The "CB and TV Repair" owner says he needs a building which will accommodate vehicles. This is needed for the installation of mobile CB radios. He also has a need for considerable storage and displaying area in his replacement site.

Through our relocation program we can and are equipped to provide "Relocation Advisory Assistance" to all displacees including businesses, if requested. An example would be to work with the displaced businesses to secure a replacement site.

Question #3.- The tenants, Mr. and Mrs. Walter Hughes, live in a portion of the "Gas Well" service station located at engineering station 135+00R. They manage and operate this business venture for the owner. As part of their salary, they occupy a small apartment area in the building. An estimate of the apartments economic rent is $125 per month. It has been reported, the owner of the "Gas Well" may attempt to put the Hughes back into a similar situation in the Redmond, Oregon, area if they desire.

Question #4 - The relocation plan was prepared in December, 1977, by R/W Agent, Joe Stupfel, from our Bend office. This is the office which will carry out the right of way acquisition phase of this project.

We have provided the answers to your questions as you have requested. If you have additional questions or a need for more information, please let us know.

JBB:DJL:jc

cc: F. B. Klaboe
E. S. Hunter
D. H. Moehring
V. E. Skoog

Form FHWA 121 (Rev. 5-73)

3950

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301
DATE: January 10, 1978

In reply refer to: HRW-OR

SUBJECT: Oregon Project F-4-2(5)
Bend SCL-Murphy Road Sec.
Deschutes County

FROM : G. L. Green, Division Administrator

TO : Mr. E. S. Hunter, Mgr., Technical Services Branch
Oregon Department of Transportation
Salem, Oregon

RECEIVED
TECHNICAL SERVICES
JAN 12 '78
REFER TO
Boyd
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K

Federal-aid Manager D. E. Swan's letter of January 6, 1978, requests authorization to proceed with all phases of right of way acquisition on the subject project. The relocation plan which is required by para. 12 of FHPM 7-5-1 has been reviewed and additional information is needed before the project can be authorized:

1. The relocation plan indicates a lead time of six months with 45 days for acquisition, 45 days for filing complaints, and 90 days for vacation of occupied improvements. A lead time estimate for appraisal, review and demolition was not included. The project involves 75 parcels and the lead time shown for acquisition would not appear adequate. Possibly this is because the lead time estimate covers only a portion of the right of way activities. Please provide a lead time estimate that will encompass all right of way activities from issuance of right of way descriptions to clearance of right of way.

2. The Plan indicates there will be five business displacements. In four instances the displacements are not identified as to type of business, location, nor is there any discussion of any problems that might be caused by displacement. This information is requested.

3. Please identify the location of the residential displacements. Does the displacement involve an owner or tenant?

4. The relocation plan should indicate the date of preparation and the right of way agent who prepared the report.

C. Matter for
G. L. Green

CC:
Boyd, Luth (R/W)

8950

4

Salem, Oregon
January 6, 1978

J. H. Versteeg
Head of Engineering

J. B. Boyd
Right of Way Manager
BUILDING

Bend S.C.L. - Murphy Rd. Section
The Dalles-California Highway
Deschutes County

Attached are 3 more Files (9 Parcels), an authorization and R/W prints covering R/W for 3 of the remaining 4 Files in the vicinity of Station 147+00 on the subject section.

The remaining File in that area (50048), as well as Files 50088 and 50089 (Hayes Ave. connection) cannot be released until additional field information is received.

The attached R/W prints supersede those previously submitted.

Enc:

[illegible] O. Burns
[illegible]

Files

Authority.

8950

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

December 29, 1977

FROM: Donald L. Trout
Office Engineer

TO: MEMO TO THE FILES

SUBJECT: Status Report of
Right-of-Way Programming
Bend SCL-Murphy Road
The Dalles-California Highway
Deschutes County

1. FHWA today approved the Negative Declaration which gives us design approval and we can now program right-of-way.

2. There are 65 total files and 59 have been sent to Right-of-Way. The remaining six can not be finalized until additional requested field information is received. These six files will not hold up the programming of the right-of-way, however.

3. The Salem Right-of-Way office must have a programming estimate from the field before right-of-way can be programmed. This estimate has been requested and they anticipate no problem in getting it in here in the next few days. When it is received it will be sent to Project Management and they will begin programming with FHWA.

4. The critical thing at this time is getting the needed information from the field.

DLT:ab

H

Form FHWA 121 (Rev. 5-73)

8950

UNITED STATES GOVERNMENT

Memorandum

GENERAL FILES

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Equitable Center, Suite 100
530 Center, NE.
Salem, Oregon 97301

DATE: December 29, 1977

In reply refer to: HEC.3-OR

SUBJECT: Oregon Project No. U-RF-108(11)
Bend SCL-Murphy Road
Final Negative Declaration

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer
Salem, Oregon

NOTED
E. S. HUNTER

Attached is a copy of the subject declaration which I have concurred in. The original document has been forwarded directly to Mr. Gary Potter in the Environmental Section.

G. L. Green

G. L. Green

Attachment

cc:
C. Laux, Proj Mgt
G. Potter, Env Section

RECEIVED
STATE HWY ENGR
DEC 30 '77
REFER TO Hunter
FOR
Info | Invest | R/D | D/R | Sign | Act | File

RECEIVED
TECHNICAL SERVICES
DEC 30 '77
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

.8950

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION FILE:

INTER-OFFICE CORRESPONDENCE

December 7, 1977

Salem, Oregon 97310

FROM: Gary A. Potter, Manager
Environmental Section

TO: E. S. Hunter
Technical Services Engineer

SUBJECT: Final Negative Declaration
Bend South City Limits-Murphy Road
U.S. Highway 97
(The Dalles-California Hwy)
Deschutes County, Oregon

The subject statement in the form of a final negative declaration has been reviewed by the Environmental Study Committee and determined to adequately cover the natural and social environmental impacts of the project.

If you agree, please sign all copies and return the original plus four copies to this office for submission to the Federal Highway Administration for concurrence.

GAP:ss

Attachments

cc: J. H. Versteeg
F. E. Terpin
D. H. Moehring
Carl Williams

NOTED
E. S. HUNTER

RECEIVED
TECHNICAL SERVICES
DEC 8 77
REFER TO
FOR:
file | Invest. | I/C | I/R | Ltr | a | ...

FINAL NEGATIVE DECLARATION
Bend South City Limits-Murphy Road
U.S. Highway 97 (The Dalles-California Highway)
Deschutes County, Oregon

Oregon State Highway Division
and
Federal Highway Administration

December 1977

Final Negative Declaration
Bend South City Limits-Murphy Road
U.S. Highway 97 (The Dalles-California Highway)
Deschutes County, Oregon

Table of Contents

Location and Description of Project 1

Purpose of the Project 4

- Traffic Conditions 4
- Traffic Projections 5
- Accidents and Safety 7

History of the Project and Agency Coordination 7

Selection of Alternatives 10

General Description of the Existing Environment 11

- Bend Area 11
- Project Area 12

Discussion of Environmental Impacts 14

- Right-of-Way Acquisition 14
- Economics and Land Use 15
- Historic and Archeological Resources 20
- Noise 20
- Air Quality 23
- Natural Environment 24

Comments Received on the Project 25

- Draft Negative Declaration 25
- Public Hearings 26

Basis for Negative Declaration 28

Appendix A: Relocation Benefits 30

Appendix B: Levels of Service on Arterial Streets 37

Appendix C: Noise Guidelines 38

Appendix D: Letters of Determination from State Historic Preservation Office 39

Bibliography 42

Final Negative Declaration
Bend South City Limits-Murphy Road
U.S. Highway 97 (The Dalles-California Highway)
Deschutes County, Oregon

This final negative declaration treats two adjoining highway projects in the Bend urban area on U.S. Highway 97 (The Dalles-California Highway and, in Bend proper, Third Street). The primary project is the widening of the two-mile section from the south city limits to Murphy Road, which will provide four lanes and a continuous left-turn median. To make this section function smoothly, the adjoining .59-mile, four-lane section to the north, from Railroad Avenue to Cleveland Avenue, will be restriped to provide a continuous left-turn median.[1]

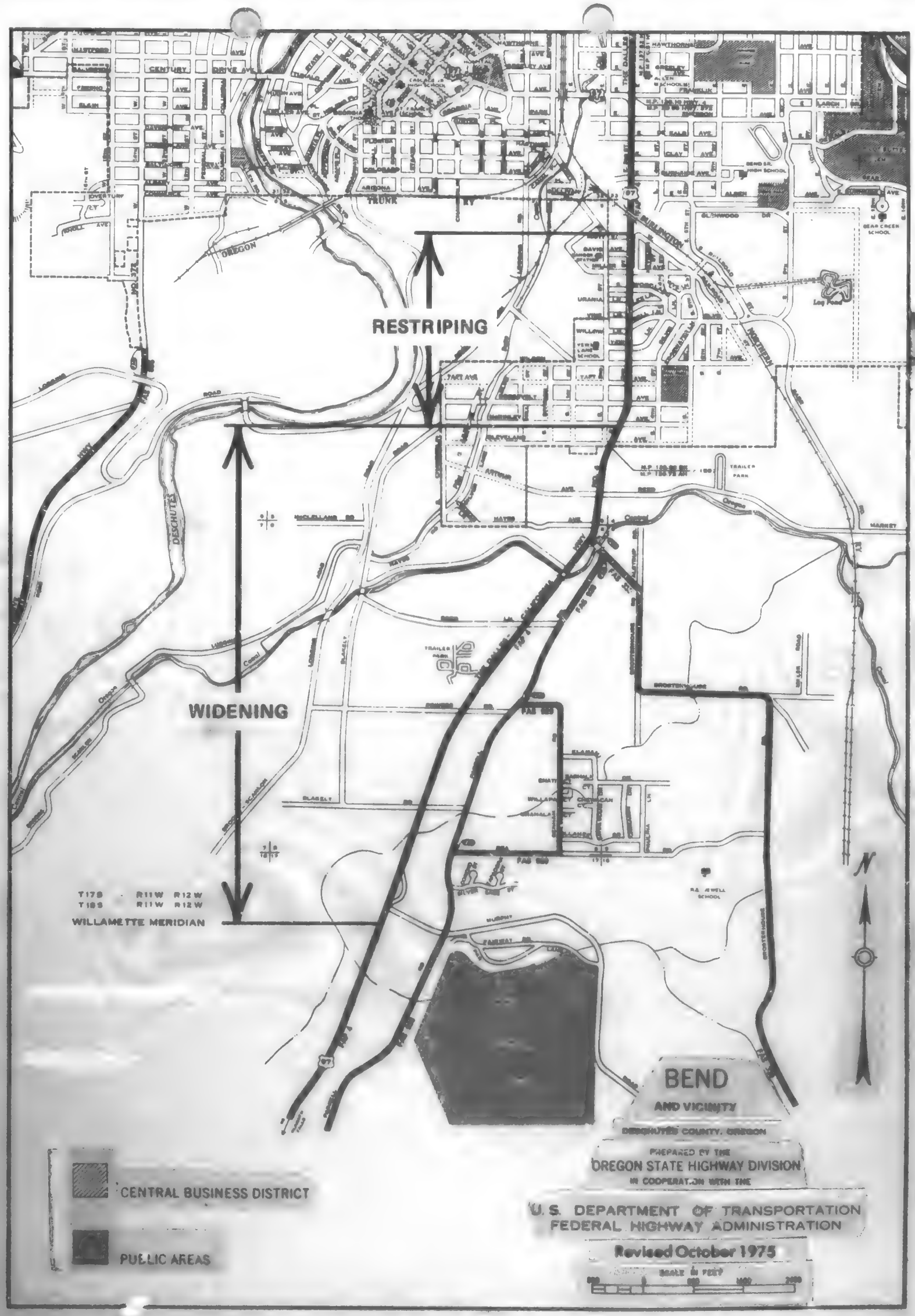
Highway 97 is a major regional transportation link, extending north into Washington and south into California, and connecting with the east-west routes of U.S. 20, U.S. 26, and ORE 126 near Bend. Highway 97 is important in helping to make Bend a trade and service center for central Oregon and in serving through commercial, agricultural, and recreational traffic. In Bend, Highway 97 has both a through route (Third Street) and a business loop (Wall Street-Bond Street couplet and Franklin Avenue) and is coincident with U.S. 20 for about 2½ miles from a point north of Bend to a major east-west street, Greenwood Avenue (also U.S. 20) in the center of the city. In the Bend urban area, Highway 97 has become a commercial street from north to south. Near the southerly end of the project section, development dwindles, leaving open land that is vegetated with juniper and pine, sagebrush, and grasses.

[1]The Bend South City Limits-Murphy Road project was treated in a draft negative declaration released September 8, 1977. No environmental reports are necessary for the Railroad Avenue-Cleveland Avenue project, although it has been the subject of two public hearings. Because this project is related in function to the widening of the South City Limits-Murphy Road section, it is discussed briefly in this report.

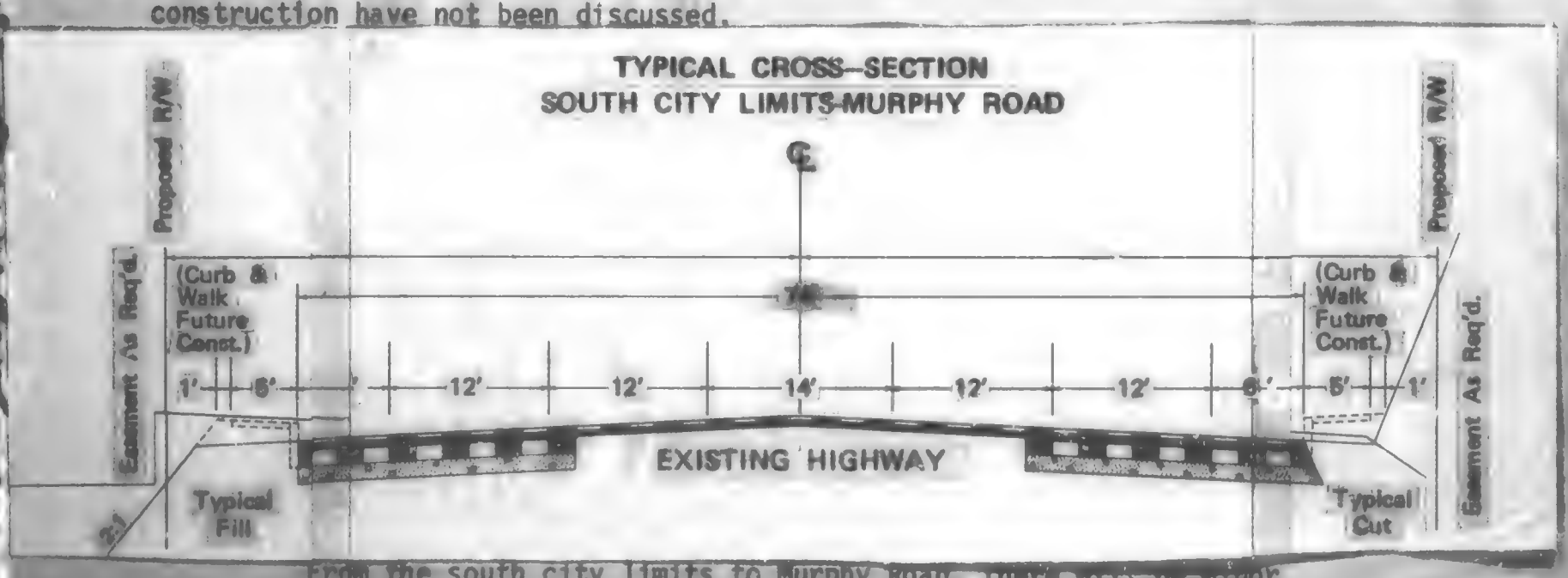
From Railroad Avenue to Cleveland Avenue, Highway 97 is now four lanes, sixty-four feet wide, with curbside parking. From Cleveland Avenue south to Murphy Road, the highway consists of two twelve-foot lanes with gravel shoulders of varying widths. Hence, providing four lanes with median will entail restriping and removal of parking (Railroad Avenue-Cleveland Avenue) and new construction (Cleveland Avenue-Murphy Road). This project will complete a continuous four-lane route through the city of Bend, except at the Burlington Northern Railroad undercrossing, which is immediately north of Railroad Avenue.

This project is viewed as a two-stage project. It is anticipated that the first stage will be constructed no earlier than the first quarter of fiscal year 1979 and may take up to twelve months to complete. The second will be constructed at an undetermined future date. This draft negative declaration deals primarily with stage one and only briefly with stage two.

In stage one, the Highway Division will build four twelve-foot travel lanes and a fourteen-foot continuous left-turn median from the south city limits to Murphy Road. (See the diagram, page 3, of typical cross-sections, which illustrates both stage one and stage two designs.) On either side, the travel lanes are to be bounded by a six-foot paved safety zone and a five-foot gravel shoulder. (The safety zone will be striped for a class 3 bikeway, in response to comments received at the public hearing.) The asphaltic-concrete pavement will be seventy-four feet wide. Sufficient right-of-way will be acquired in stage one to accommodate stage two construction; the width of the right-of-way is to be ninety feet, with easements for cuts and fills where required. Also, as part of stage one, the Railroad Avenue-Cleveland Avenue section will be restriped to provide a fourteen-foot continuous left-turn median, two twelve-foot inside lanes, and two thirteen-foot outside lanes. All curbside parking will be removed to provide for the left-turn median. A total of 85 spaces will be removed, 45 on the west side, 40 on the east side.


RESTRIPING
WIDENING
T17S - R11W R12W
T18S R11W R12W
WILLAMETTE MERIDIAN
CENTRAL BUSINESS DISTRICT
PUBLIC AREAS
BEND
AND VICINITY
DESCHUTES COUNTY, OREGON
PREPARED BY THE
OREGON STATE HIGHWAY DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Revised October 1975
N

In stage two, a five-foot curbed sidewalk/bikeway is to be built on either side of the roadway from the south city limits to Murphy Road. On the east side, that sidewalk/bikeway may someday connect to a bikeway built along Parrell Road, which parallels Highway 97. Stage two plans also will include provisions for drainage of pavement runoff by storm sewer and may include plans for drainage of adjacent land. Some of the design alternatives considered earlier in planning for this project were variations of this stage-two plan. However, the Highway Division felt it would be too costly to provide for drainage by storm sewer in the present project. Any plans the Highway Division proposes would be compatible with the sewer systems built by local governments. (See later discussion of sewerage and drainage, under "Economics and Land Use.") The means of initiating and paying for stage two construction have not been discussed.



From the south city limits to Murphy Road, there will be minor realignment on some curves, shifting the centerline about five feet. Generally, right-of-way acquisition will affect properties within forty-five feet of that centerline on either side. A preliminary estimate of right-of-way acquisition indicates that over seventy-five properties will be affected. Nine businesses and two housing units will be removed. In other instances, some properties

will lose setback, parking area, and landscaping. Parking on the highway shoulder will no longer be possible. Since no new construction will be needed from Railroad Avenue to Cleveland Avenue, no additional right-of-way will be acquired, but, again, all parking will be removed. All accesses will be restored and utilities, signs, and mail boxes replaced.

Two traffic signals are to be installed, one at Arthur Avenue intersection (M.P. 139.86), where a new shopping center will be. The other signal is to be installed at Brosterhouse Road (M.P. 140.01), now a T-intersection. Hayes Avenue, which is now across from and about 200 feet north of the Brosterhouse Road intersection, will be reconnected to Highway 97 at Brosterhouse Road to form a four-way intersection. Posted speeds are likely to be 35 miles per hour from Railroad Avenue to Reed Lane and 45 miles per hour from there south to the end of the project section.

Purpose of the Project

Traffic Conditions

The primary objective of this project is to ease traffic congestion: to eliminate the stop-and-go conditions caused by heavy traffic volumes and turning movements. The usual traffic congestion of this section is aggravated in peak hours weekdays and in the tourist season, which extends from May through October.[2]

[2]Traffic counts were taken at different times for the South City Limits-Murphy Road section and for the Railroad Avenue-Cleveland Avenue section, and traffic projections were made for different future years. Nor are accident statistics comparable. Therefore, these two projects are discussed separately at this point. The lengthier discussions of traffic and accidents on the section south of the city limits reflect the greater complexity of that project.

South City Limits-Murphy Road. --From Cleveland Avenue to Brosterhouse Road, the 1976 average daily traffic volume (ADT) was 18,000, and the peak hour traffic volume was 1700. The level of service based on average daily traffic in 1976 was "E."[3] From Brosterhouse Road to the southerly terminus of the project section, however, the level of service based on average daily traffic was "B" or better. The 1976 ADT from Brosterhouse Road to Powers Road (M.P. 140.67) was 12,800, and from Powers Road to Murphy Road (M.P. 141.29), the ADT was 10,200. South of the project section, traffic volumes are markedly lower; in 1976, the Lava Butte traffic recorder 2.7 miles south of Bend registered an ADT of about 6100.

Railroad Avenue-Cleveland Avenue. -- The average daily traffic volume (1977) is 21,700 vehicles. About 10%--a significant percentage--are making left turns. The highway now operates at level of service "D."

Traffic Projections

South City Limits-Murphy Road. -- It is assumed that, if the proposed project is not built, congestion and safety problems will increase on the project section as traffic increases. However, from Cleveland Avenue to Brosterhouse Road, because the level of service is already very low, it is felt that little more traffic can be absorved. The length of highway from Brosterhouse Road to Powers Road will be at level "C" by 1978 and "D" to "E" by 1988, and from Powers Road to Murphy Road, the level of service will be "C" to "D" by 1988. Given such congestion, it is anticipated that drivers will redirect their trips over side streets, even for a few blocks. It is also possible that drivers would rely on Denser Road/ Arnold Market Road, east of the city. Assuming that drivers will redirect their trips to avoid congestion on Highway 97, the Depart-

[3]Levels of service are defined in Appendix "B."

ment of Transportation's Traffic Section projects the following average daily traffic volumes if the project is not built.[4]

No-Build Alternative

	Cleveland Ave.- Brosterhouse Rd.	Brosterhouse Rd.- Powers Rd.	Powers Rd.- Murphy Rd.
1978	19,500	14,000	11,000
1988	19,500	16,300	15,100
1998	19,500	16,300	15,100

In short, traffic is projected to peak out under the no-build alternative. Such projections also imply that land development in the southern part of Bend, in those areas accessed by Highway 97, could eventually be limited without this project or other north-south street improvements.

In contrast, with the proposed four-lane widening project, ADT's are projected to grow beyond those ceilings.

Build Alternative

	Cleveland Ave.- Brosterhouse Rd.	Brosterhouse Rd.- Powers Rd.	Powers Rd.- Murphy Rd.
1978	19,500	14,000	11,000
1988	26,600	20,000	15,100
1998	33,800	26,100	21,100

With these traffic volumes, the four-lane section with median could provide a level of service of "B" or better for the twenty-year period following construction--except in 1998 from Cleveland Avenue to Brosterhouse Road, where the level of service is expected to be "D."

[4]The future availability and cost of fuel were not considered in these traffic projections, nor in other projections and analyses used in this report.

Railroad Avenue-Cleveland Avenue. -- The level of service without the restriping is projected to remain at "D" to 1978 and lower to "E" by 1980. In contrast, with the restriping, the level of service can be sustained at "C" until 1984, when level "D" will obtain. By 1986, the average daily traffic volume is projected to be 32,000. These projections are based on the assumption that other nearby streets will be improved to absorb some of the north-south traffic that would otherwise travel on Highway 97. However, if no such street improvements are made, traffic is projected to surpass 40,000 ADT by 1986, and, correspondingly, levels of service would be lower than projected above.

Accidents and Safety

South City Limits-Murphy Road. -- The congestion of this unit is reflected in the fact that most recorded accidents are rear-end and turning accidents. In 1975, there were 28 accidents on the project section; 23 persons were injured in those accidents; none was killed. The accident rate for 1975 was 5.06 per million vehicle-miles. This compares to a 1975 rate of 3.64 per million vehicle-miles for comparable highways (primary suburban highways other than freeways). There were 3 fatalities on the project section from 1971 through 1974, all of them within a few hundred feet of Murphy Road.

Railroad Avenue-Cleveland Avenue. -- The accident rate for this unit in 1975 was 4.5, and in 1976 was 6.8. This compares to a statewide rate of 6.4 per million vehicle-miles for comparable highways (primary urban highways other than freeways). There was one fatality in 1975, two hundred feet north of Taft Avenue.

History of the Projects and Agency Coordination

The traffic problems of Highway 97 near the southerly section of Bend were recognized as early as 1968, when the Oregon State Highway Division drew up

preliminary plans for a four-lane widening south of the city. That project was placed in the so-called "backlog" of projects, which were planned far in advance of construction and to be constructed when funding would allow. When the Preliminary Six-Year Construction Program was released in October 1974, the Bend South City Limits-Murphy Road project was not listed for funding. But a public meeting in Bend on December 3, 1974, helped place this project on the program. When citizens at that meeting expressed interest in improving the southerly part of Highway 97 in Bend, the Highway Division's Region 4 Engineer explained that funds would not permit projects to be added to the Construction Program unless other projects were traded. The lack of local support for the two Highway 20 projects initially listed for funding (Bend East City Limits-Ward Road and Ward Road-Arnold Ice Cave) brought the Highway Division to drop those projects from its Preliminary Six-Year Construction Program and add the Bend South City Limits-Murphy Road project and another on Highway 97, Third Street Railroad Undercrossing. In subsequent revisions of the six-year plan, the Third Street Railroad Undercrossing project was deleted.

After the Highway Division designated the Bend South City Limits-Murphy Road project for funding, the Bend City Commission expressed delight, citing the problems of heavy traffic, turning movements, and accidents (letter of April 3, 1975). The Central Oregon Intergovernmental Council sent a similar, approving letter to the Highway Division (letter of October 29, 1975). The Oregon Project Notification and Review System (A-95 review) was completed November 18, 1976; reviewing agencies raised no objection to the project.

Three alternative designs for the South City Limits-Murphy Road project were prepared by the Region 4 Highway Division office in 1976; the Highway Division's Location Section further modified those designs, advancing the presently

proposed design in March 1977. A draft negative declaration presented the proposed alternative and the no-build alternative. It was released September 8, 1977, and circulated for review. A public hearing was held October 20, 1977, in Bend, as discussed later in this report.

The Railroad Avenue-Cleveland Avenue project originated with a letter from the Region 4 Highway Engineer to the City of Bend, September 7, 1976. In that letter, the City was asked to consider removing parking along the section so that a continuous left-turn lane could be installed. The proposal was presented at an informational public hearing on November 10, 1976. Most who testified at the hearing opposed the removal of parking, saying that business and property owners would be hurt economically.

Nearly all proprietors of the businesses fronting on Highway 97 between Railroad Avenue and Cleveland Avenue were interviewed in late 1976. Of those who were interviewed, 27 percent felt that they would be adversely affected if parking were removed; 15 percent were not sure whether they would be affected; the rest either favored the project or did not feel that they would be adversely affected.

On April 6, 1977, the Bend City Commission held a meeting to adopt the proposal for removal of parking. However, before the vote was taken to adopt the proposal, it was clarified that parking would not be removed until the South City Limits-Murphy Road project was completed in order to give businesspersons time to prepare for the loss of curbside parking.

A second public hearing on the restriping project was held at the Bend City Commission meeting of March 2, 1977. That hearing is discussed briefly below (pp. 27-28).

Selection of Alternatives

The Highway Division considered two alternatives for the South City Limits-Murphy Road project; building the project (stage one) as proposed, and not building it. The three alternative preliminary designs prepared by Region 4 were similar in that, in calling for a sidewalk/bikeway, each would require more pavement than does the project as presently proposed. Those designs were modified, deleting the sidewalk/bikeway from stage-one plans, because of the drainage problems posed by the geology of the Bend area. One alternative considered was to install curb inlets that would drain pavement runoff either through drill holes in the lava bedrock to drywells or through a storm sewer pipe to the Deschutes River. However, a seismic study in one area of the project section (September 1976) revealed that underground fractures in the lava may not be large enough to accommodate the highway runoff. The alternative drainage system, a storm sewer system for the highway and perhaps for adjacent land, proved too costly. Further, there could be a potential for water quality problems if the runoff were piped, without treatment, to the Deschutes River.

Given funding constraints and the intricacies of planning a drainage system that meets the Department of Environmental Quality's water quality regulations and that is compatible with future local storm and sanitary systems, it was decided to delay construction of curbs and a sidewalk/bikeway and a storm sewer south of the city limits until stage two. In the meantime, the highway shoulders are to be graveled and the runoff to be drained, as now, through gradual dispersion.

In stage two, the Highway Division will plan for a storm drainage system. It may be that the Highway Division will design an independent system for highway runoff or will plan to drain runoff to a storm sewer system that serves adjacent development; such a system could be built by local jurisdictions, or it could be built cooperatively by those local jurisdictions and the Highway Division.

The Highway Division opted to complete this widening project, finding relief of congestion to be in the best interest of motorists and, perhaps, of businesses. Businesses should flourish because, while traffic increases, congestion will be relieved. Thus, businesses will be exposed to increased numbers of potential customers, and the left-turn lane will contribute to their accessibility.

For the Railroad Avenue-Cleveland Avenue project, three alternatives were considered: (1) creating the left-turn median and removing all parking, (2) creating the left-turn median and removing some parking, and (3) doing nothing. The first of these alternatives was chosen because traffic would flow more smoothly with all parking removed. Although some businesses may be hurt by the loss of parking, addition of a left-turn lane will make most businesses more accessible. Delaying the restriping until construction of the South City Limits-Murphy Road section should allow businesspersons time to provide additional private parking, to move their businesses, or to sell.

General Description of the Existing Environment

Bend Area

The central Oregon city of Bend (elevation 3,350 - 4,000 feet) lies on the eastern slopes of the Cascade Mountains in Deschutes County. Bend, with 17,000 people, is the largest city in the county and, next to Klamath Falls, is the largest city east of the Cascades in Oregon. Bend is built along the Deschutes River and is dominated by Awbrey Butte, Overturf Butte, and Tumalo Butte west of the river and Pilot Butte east of the river. Much of the Bend area is vegetated with juniper, ponderosa and lodgepole pine, sagebrush, and a variety of grasses. The climate is dry and hot in the summer and cold and moderately snowy in the winter. Average wintertime temperatures are in the thirties and summertime temperatures in the sixties, although it is not uncommon for seasonal temperatures to fall below freezing and rise above 90°F.

VICINITY MAP

SCALE

N

Cloverdale
Plainview
PRINEVILLE JUNCTION
REDMOND
LONG BUTTE
TUMALO
DESCHUTES
BEND
NATIONAL
FOREST
LAVA BUTTE GEOLOGICAL AREA
LAVA ISLAND FALLS
Forked Horn Bu
Horse Bu.
T15S
T16S
T17S
T18S

In being near the Deschutes National Forest, Bend has developed an economically important lumber and wood products industry. Agriculture and food processing, other important economic activities for Bend, have declined in employment in the last decade, while employment in lumber and wood products industries has grown. Retail trade and services and tourism are growing and are expected to continue to do so. (Patterson, Langford, and Stewart, the Bend Area General Plan: Economics and Population, vol. 2, July 1974).[5]

The semi-arid climate and the variety of natural resources in Bend make it a recreational center year round. Popular activities include fishing, hunting, camping, rock-hounding, hiking, skiing, wildlife observation, and general sightseeing. Readily accessible recreational resources include the Deschutes River; the Cascade Mountains, Mt. Bachelor, and Black Butte; lava fields, with tourist facilities at such sites as Lava Butte Visitor Center, Lava River Caves, and Arnold Ice Cave; the Century Drive Lakes and nearby Crane Prairie Reservoir and osprey refuge. Several real estate developers have capitalized on the natural recreational value of the Bend area in building such resorts as Sunriver Lodge, the Inn of the Seventh Mountain, Black Butte Ranch, Mt. Bachelor Ski Area, and the LaPine Recreation Area.

Project Area

The project section of Highway 97 is edged by commercial strip development, much of it highway-oriented. In this strip are scattered homes, trailer courts, an apartment building, and a duplex. A few of the more than twenty houses are boarded up, ready to be sold, presumably for commercial use.

[5]The Other two volumes are Bend Area General Plan: Existing Conditions, vol. 1 (Dec. 1974) and Bend Area General Plan, vol. 3 (Nov. 1977).

Most of the homes are owner-occupied. Three or four parcels of agricultural land remain. There is also a small, private primary school, the Central Oregon Christian School. Nearby to the west of the project section are the Brooks-Scanlon lumber yards; nearby to the east are the Bend Golf Course and the Tillicum Village residential subdivision. Among the numerous and various businesses that line the highway are motels, service stations, mobile home dealers and services, an auto salvage yard, a cleaning and laundry business, a manufacturer of recreational clothing, building supply houses, realty offices, antique and gift shops, restaurants and a tavern, a grocery, and auto repair garages.

Recent or ongoing developments on or near the project section include Bend Tri-Cinema, an auto repair garage, residential and mobile home subdivisions, and a shopping center. A recently developed housing subdivision, Pinebrook Estates (about 85 lots), abuts the highway on the west, across from Murphy Road. More subdivisions have been approved for construction. Near the southerly end of the project section, also west of the highway, are mobile home parks, which total about 160 acres. The largest of these parks is Romaine Village, which is soon to be expanded. A recreational center, on the order of Knotts Berry Farm, may be built next to Pinebrook Estates. The shopping center noted above is soon to be built on a five- or six-acre lot at the northwest corner of the Highway 97-Arthur Avenue (Reed Market Road) intersection. According to the Deschutes County Planning Department, the southern part of Bend, particularly east of Highway 97, is likely to be the fastest-growing residential area of the Bend urban area for the next several years; hence, one can expect attendant commercial growth in appropriately zoned areas such as Highway 97. For the southeastern part of Bend, near the Tillicum Village subdivision, the Bend

Area General Plan projects the highest population growth, by 1985, of the Bend Planning area.

Discussion of Environmental Impacts

Right-of-Way Acquisition

Again, no new right-of-way need be acquired for the Railroad Avenue-Cleveland Avenue section of this project. Over seventy-five properties will be involved in right-of-way acquisition for the South City Limits-Murphy Road section. Nine businesses and two residences, most of them on the west side of the highway, will be displaced. Other right-of-way effects will be encroachment on or removal of landscaping and parking space; and relocation of utilities, signs, and driveways. No on-street parking will be permitted, which in effect will reduce parking area for several businesses, though not significantly. There will also be a general loss of setback.

Among the displaced are two businesses in adjoining buildings west of Highway 97 between Arthur Avenue and Hayes Avenue--Power Clean Services and Mobile Home Specialties. Near Hayes Avenue on the west side of the highway are two frame buildings that will be displaced; one is used as an antique shop, the other as a specialty shop and living quarters. Just north of Reed Lane are a service station, the Gas Well, and an attached residence that will be removed; the occupant of the residence operates the service station and will be relocated elsewhere. Also to be removed is a building a few hundred feet north of Blakely Road on the west side of the highway; the building is now used for a stereo repair and sales outlet and a secondhand-furniture store. The furniture store is being moved by the owner, and its space will soon be taken over by the stereo business. On the east side of the highway near Blakely Road is a Mobil Station that will be moved, although it can be relocated

on the same property. Also to be taken is a Texaco Station west of the highway near Murphy Road; it too can be relocated on the owner's remaining property. On the west side of the highway near Romaine Village is a frame structure -- now a fast-food outlet -- which will be removed but can be relocated on the same property.

There will be numerous encroachments on frontage, which will entail, for example, loss of mobile home display area, loss of part of a lumber storage shed, and relocation of a septic tank drainfield. Off-street parking will be reduced on about twenty business properties and at the Central Oregon Christian School. Landscaping and scattered trees will be removed, along with a strip of sagebrush and pine grazing land.

The businesses and residences displaced because of this project will be eligible for relocation benefits as stipulated in the 1970 Uniform Relocation Act. (See Appendix A, "Relocation Benefits.") The displaced are eligible for payment of reasonable moving expenses. The Highway Division will provide advisory assistance to the displaced: a right-of-way agent from the Region 4 office will be available to assist the displaced in finding comparable relocation sites.

Economics and Land Use

Federal funds are to be used for stage one widening, which is estimated to cost $1,400,000, excluding right-of-way costs. In addition, if it were done today, stage two construction would cost $980,000. The restriping will cost about $3,000 and will be paid for with State funds.

In removing parking area, both off-street and on-street, this project has a potential to reduce trade at local businesses, unless property owners expand

their parking areas. Of course, business persons who lose off-street parking (South City Limits-Murphy Road section) will be compensated by the Highway Division. Other compensating factors, which may well stimulate trade, are the addition of a continuous left-turn refuge and the increases in traffic volume projected for the next several years. Such improvements in access and increases in traffic will contribute to the value of adjacent properties for commercial use.[6] In the long run, then, most property owners are likely to realize profits from lease or sale of their land. For lessees of businesses that suffer economic losses, the options are to relocate, to change their type of business, to lease more parking area, or to close. As indicated, those businesses with little or no private parking may be hurt by the restriping of the Railroad Avenue-Cleveland Avenue section. It is possible that any businesses that close due to loss of on-street parking will be replaced by businesses that do not rely on such parking. A Highway Division study of available parking on side streets (February 1977) showed at least as many spaces on those streets as will be lost because of restriping Highway 97. Though such parking may be less convenient than on-street parking, it will minimize the adverse effects of parking removal. Again, these businesses will have time prior to completion of these projects to take any actions necessary to compensate for the loss of on-street parking.

The loss of setback caused by right-of-way acquisition (South City Limits-Murphy Road) may be detrimental to some businesses--such as motels, which need relative quiet, and such as Century West Resources and the China Ranch Restaurant, which will be very close to the highway. On the other hand, the improved visibility--coupled with easier access and higher traffic volumes--may offset the disadvantages of minimal setback.

[6]The high correlation between commercial property values and traffic volumes is substantiated in Paul B. Downing, "Factors Affecting Commercial Land Values: An Empirical Study of Milwaukee, Wisconsin," Land Economics, XLIX (Feb. 1973), 44-56.

The residences and the Central Oregon Christian School will be worse off for the loss of setback than will most businesses. The traffic noise, hazards, and unsightliness of the highway may cause homeowners to sell. In short, widening the highway may speed the turnover of residential properties to commercial use. As noted, property owners who choose to sell will benefit from rising land values; those who do not will be subject to gradually increasing noise and traffic. The Central Oregon Christian School will lose its front parking lot and will be within about twenty feet of the outside travel lane, where noise levels will be very high. (See later discussion, under "Noise.") In addition, the closeness of the highway may pose hazards for children of the school. In time, and if their budget allows, the school administration may choose to move to a more desirable site. The Highway Division will investigate means of noise abatement in an effort to minimize some of the ill effects of noise on the school.

There are likely to be temporary slowdowns of business during construction months. However, business should recover rapidly following completion of the project.

In the Bend Area General Plan, the need to alleviate traffic congestion on the southerly sections of Highway 97 in Bend is recognized. In the part of that plan entitled "Circulation" (vol. 3), some solutions are delineated that would relieve congestion on Highway 97 by improving north-south circulation on other streets. A less feasible alternative suggested in the General Plan is an expressway bypassing Bend on the east side. The General Plan notes that 80 percent of all traffic on Highway 97 is destined for the Bend area and therefore recommends that a bypass be considered a long-range option only. The General Plan favors instead interim improvements of the eastside north-south arterial and collector system and specifically suggests relieving

traffic congestion on Highway 97 south of Cleveland Avenue by removing on-street parking and by adding turning lanes at the more congested intersections. The South City Limits-Murphy Road project and the Railroad Avenue-Cleveland Avenue project can therefore be considered in keeping with the General Plan.

This project is consistent with local zoning, with the land uses proposed in the Bend Area General Plan, and with the Goals and Guidelines of the Department of Land Conservation and Development. The improved access should intensify the trend already apparent in the project area: the development of a commerical strip that serves nearby residential areas and highway traffic. It is also expected that the open, vacant land immediately south of the project section will gradually be developed to urban densities. This project--in widening the highway and providing better turning opportunities--will be one factor in the growth of this part of the community.

Local sewerage planning, by the City of Bend and Deschutes County, may well influence land use and population trends as much as any other single factor, including this highway improvement project. The extensive lava fields underlying the soils in much of Central Oregon have long posed problems for sewage and drainage. Until recently, Bend was the only city of its size in Oregon with no communitywide sewer system (Portland Oregonian, March 20, 1977). Only ten percent of the urban area is served by sewers; the rest rely upon individual septic tanks that treat the waste and discharge the runoff through drill holes into lava fractures that run some 6 to 100 feet below the surface. It is possible that such fractures connect to deep aquifers, perhaps 700 to 800 feet below ground, that supply the community with water. The City of Bend is now in the process of planning for a citywide sewer system, in response to a

Department of Environmental Quality mandate.[7] Bend plans to enlarge its sewage treatment plant and lay pipe to add 5000 more serves. This system will have the capacity to be expanded to meet the needs of a projected (A.D. 2000) urban-area population of 60,000.

It can be predicted that residential and commercial development in the unincorporated areas near Bend, such as the project area, will lead to demand for construction of sewer facilities in those areas. As the Bend Area General Plan predicts, the State may eventually require sewer systems and prohibit septic tanks in unincorporated areas developed at urban densities. If so, there may be pressure brought against Deschutes County (1) to annex to the city and tap into its system, (2) to encourage formation of special service districts, or (3) to provide sewers through a County service district. In its proposed sewerage plan, the City of Bend anticipates that a sewer line will be laid along Highway 97 south of the city but does not propose either a date for completion or a funding source. The plan states simply that the line will be installed as needed.

In the Bend Area General Plan, it is predicted that an additional 19,000 people will come to live in the Bend area by 1985 and that many of them will settle in the project area. The General Plan states that care should be taken in planning for this growth, so that commercial strip development is not extended. Because improved access can lead to extension of such commercial strips, it will be in local planners' charge to see that growth is orderly.

[7] OAR ch. 340, secs. 44-010 through 44-045, May 1970, prohibits construction or use of waste disposal wells after January 1, 1980. This regulation singles out the lava areas of Oregon as being particularly problematic and calls upon incorporated cities to provide adequate sewage treatment facilities.
Information about Bend's proposed sewer system was obtained through a telephone conversation with the Bend City Engineer, May 12, 1977, and from the negative declaration on the sewage treatment facility (EPA, April 5, 1977).

There are no prime or unique farm lands in the project area, and thus there will be no effects on such lands.

Historic and Archeological Resources

The Bend South City Limits-Murphy Road project area contains no properties which are listed on, nominated to, or eligible for the National Register of Historic Places.[8] Nor are there any properties that are included in the Statewide Inventory of Historical Sites and Buildings. Consequently, there will be no adverse effects on historic resources caused by construction of this project.

The Deschutes River basin in the vicinity of Bend was formerly occupied by Molalla and subsequently by Tenino and some Warm Springs tribes of the Sahaptin Indians. The proximity of the river and the inherent fishery resource indicate the possibility for existence of archeological sites or remains of Indian encampments in the area.

An archeological reconnaissance survey will be performed by the Department of Anthropology of the University of Oregon. If any archeological materials are discovered, all salvage or other mitigation measures will be completed prior to initiation of any construction activities and will be coordinated and approved by the State Historic Preservation Office.

Noise

Existing and projected noise levels along the South City Limits-Murphy Road section were estimated with the use of the nomograph of J.E. Wesler in the Manual for Highway Noise Prediction (Cambridge, Mass.: Transportation

[8]The Oregon State Historic Preservation Office was contacted to determine whether any National Register or Statewide Inventory properties exist in the project area. (See attached letters of determination from the State Historic Preservation Office.)

Systems Center, 1972). The nomograph method provides estimated noise levels in decibels on the "A" scale (dBA), L_{10},[9] and can also indicate the distance from the roadway to which the 70 dBA contour will extend. This method takes into account the variables of traffic volume, percentage of trucks, and vehicle speeds.

Federal Highway Administration guidelines[10] recommend an exterior noise level of 70 dBA near such land uses as motels, residences, schools, and public meeting places and recommend an exterior noise level of 75 dBA near other land uses in developed areas. As described above, under "General Description of Project Area," the project section is a commercial strip with retail and office uses, motels, restaurants, and scattered residences. Although building setback is highly variable, many of the buildings, south of the city limits, will be very close to the reconstructed highway--from ten to forty feet. There are virtually no barriers to noise provided by trees, fences, or topography.

Existing and projected noise levels, for both the build and no-build alternatives, exceed levels recommended by FHWA. The table below lists existing and projected noise levels, L_{10}, ten feet from the nearest travel lane for the South City Limits-Murphy Road section. The table gives pre-construction conditions (1976) and projected build and no-build conditions for 1978, 1988, and 1998. The project section is broken into three units.

[9]Noise is generally measured in decibels (dB), a logarithmic measure of sound pressure. Of the several adjusted or weighted decibel scales, the so-called "A-weighted" scale is often used to describe noise because that scale best approximates human hearing; i.e., it assigns higher values to sound frequencies found most annoying to humans.

To account for variations in noise over periods of time, noise is expressed by the statistical descriptor L_{10}, which refers to the noise level that is exceeded 10 percent of the time. The term L_{10} 70 dBA means that--in a given area, in a given span of time--the sound level of 70 dBA is exceeded 10 percent of the time.

[10]U.S. Department of Transportation, Federal-Aid Highway Program Manual, vol. 7 ch. 7, sec. 3, "Procedures for Abatement of Traffic Noise and Construction Noise" (May 14, 1976). See also Appendix "C."

Noise Levels

	Existing	No-Build			Build		
	1976	1978	1988	1998	1978	1988	1998
Cleveland Ave.- Brosterhouse Rd.	88	89	89	89	89	90	93
Brosterhouse Rd.- Powers Rd.	87	87	88	88	87	89	90
Powers Rd.-Murphy Rd.	85	85	88	88	85	88	89

As can be seen from the table, noise levels in 1976, ten feet from the roadway, were calculated to be from 85 to 88 dBA. If the project is not built, noise is projected to increase, by 1998, one or two dBA over 1976 levels on the stretch south of Brosterhouse Road; between Cleveland Avenue and Brosterhouse Road, noise is projected to remain the same. If the project is built, noise will increase from three to five dBA over the twenty-year period studied.

Among the most sensitive receptors along the roadway are several houses; a trailer court; the K-Bar 7 Apartments; the Pine Forest Grange; the Obsidian Motel; the Hillcrest Motel; Bend's 97 Host Motel and an attached duplex; and the Central Oregon Christian school. Other commercial concerns will also be subjected to noise from the highway because of their minimal set-back; such businesses are the China Ranch Restaurant; Johnson Electric; the Fireplace of Bend; and Century West Resources, along with three nearby smaller businesses. Noise levels at all of these sites are in excess of recommended levels, as noted. If the project is built, all will be subjected to noise increases of a few decibels by 1988. When noise exceeds recommended levels, there is a potential for interference with human activities such as talking and sleeping and for interference with commercial and office activities. In some areas, increased noise leads to devaluation of property. However, along

the project section, which lies in the fastest-growing area of Bend, property values are likely to rise as surrounding development creates added demand for commerical services. Over the twenty-year study period, highway noise will affect land uses well removed from the highway. Such developments as the Pinebrook Estates housing subdivision and the Romaine Village mobile home park, which now have ample setback, may by 1998 be subjected to the increased noise levels that added traffic will bring.

In addition, construction work for this project will add to the noise of the area. However, this noise is not considered significant, because it will be only temporary and because construction will be scheduled for daylight hours to keep disturbance to a minimum.

Noise abatement measures will be investigated. Because businesses along the project section depend upon access and visibility, the Highway Division is not likely to undertake noise abatement measures, e.g., berms, for the numerous businesses and residences along this strip. However, the Highway Division will consider abatement measures, such as berms or interior insulation, to relieve noise at the Central Oregon Christian School.

Air Quality

Air quality projections were made by computer modeling[11] for the years 1978 (the year or project construction), 1988, and 1998 for both the build and no-build alternatives. Mean temperatures, wind speeds, and cloud cover for Bend were used in making these projections. Vehicle exhaust emission factors used in the air quality analysis were calculated on the basis of the methodology outlined by the U.S. Environmental Protection Agency (in their

[11] The Oregon State Highway Division computer programs--EMCAL, AIRPOL4B, and PASQUITL--were used in these projections.

publication AP-42, Supplement 5, 2nd ed., April 1975).[12] The months of January and July were selected for the analysis, because these months reflect the seasonal variations in air temperature in Bend and in traffic volumes on U.S. 97.

Local concentrations of carbon monoxide were also projected. Only carbon monoxide was considered in this analysis of local concentrations of pollutants because, being a non-reactive compound, carbon monoxide is more readily measured than other pollutants, and because, being associated with the internal combustion engine, it is a good indicator of highway-related pollutants. Concentrations of carbon monoxide near selected sensitive receptors (two houses, a motel, an apartment building, and an office building) showed that there will be no violations of air quality standards at these sites in the twenty-year period studied.

There will be only minor, temporary disturbance during construction, which will not constitute an adverse impact. On the bases of these analyses, the Highway Division has determined that the proposed project will have no significant impact on air quality and that it is consistent with the State of Oregon Clean Air Act Implementation Plan.

Natural Environment

Natural resources in the project area are scant, apart from a fifteen-hundred-foot stretch of sagebrush, pine, and juniper at the southerly end of the project section. Habitat lost to right-of-way will be minimal; such habitat--commonly occupied by small mammals, rodents, and birds--is available nearby to the south and to the east.

[12]Congress recently revised these omission factors and the methods by which they are calculated. The standards for automobiles manufactured in the U.S. were also delayed: manufacturers must meet emissions standards by 1979 rather than in 1977. The revised requirements are scheduled to be released in February 1978.

Again, to assure compliance with water quality standards, the Highway Division has elected to delay construction of curbs and a sidewalk/bikeway because the addition of curbs would require more elaborate provisions for drainage of runoff. The Highway Division intends to delay construction of stage two, pending local planning decisions about sewage and drainage systems.

Two materials sources are proposed for use in construction: (1) a State-owned borrow source about six acres in size, five miles south of Bend on Highway 97, from which 10,000 cubic yards of cinders and pumice will be extracted; and (2) a State materials source about eight acres in size, under easement from Deschutes National Forest, nearly eight miles southwest of Bend on Century Drive, from which 15,000 cubic yards of gravel will be extracted. Both sites have been used for other highway projects and therefore would show few effects of further disturbance. Although the excavations would be unsightly, both sites are well removed from the roadway, and are thus out of view.

In the event that the contractor elects to furnish his own materials source, all work will be governed by Section 106.5 ("General Requirements Concerning Sources of Borrow and Aggregate") of the Oregon Transportation Commission's Standard Specifications for Highway Construction, 1974, as supplemented, to insure proper treatment and reclamation of the source.

There are no wetlands in the project area, and no threatened or endangered species of wildlife will be affected by this project.

Comments Received on the Project

Draft Negative Declaration

Only one letter of comment was received on the Draft Negative Declaration for the Bend South City Limits-Murphy Road project. That was a letter from the

president of the Bend City Planning Commission (September 23, 1977), requesting that the sidewalk/bikeway be constructed as part of stage one rather than stage two and urging speedy construction of the project.

In response, the Highway Division must reiterate that the additional curbing and surfacing would entail construction of drainage facilities. Again, the cost for drainage provisions is estimated to be almost one million dollars. Such an expenditure is not possible now, given other priorities established by the Six-Year Highway Improvement Program.

Public Hearings

A public hearing on the Bend South City Limits-Murphy Road section was held in Bend at the Elks Lodge, 7:30 p.m., October 20, 1977. There was an informational hearing in the afternoon; testimony was received at the evening session. The hearing record remained open for ten days. Over forty persons attended the hearing itself. Fourteen testified orally; three submitted written comments, two of whom also testified orally. Three letters were received, two of them from persons who testified at the hearing.

None of those submitting testimony opposed the project. Most said that the project is urgently needed. Those favoring the project included the Bend City Commission, the Deschutes County Commission, the Bend Chamber of Commerce, the Romaine Village Homeowners' Association, the Tillicum Village Homeowners' Association, the mayor of Bend, and several citizens.

The mayor of Bend, like the Bend City Planning Commission in their letter on the draft negative declaration, requested that construction of a sidewalk/bikeway and storm sewer be made part of stage one. Again, funds are not available for such extensive roadwork at this time. However, the Highway

Division has modified the originally proposed design in order to provide a class 3 bikeway in stage one construction. The paved shoulders will be six feet wide instead of four feet and will be striped on either side of the roadway for a bikeway. The paved surface in stage one will thus be seventy-four feet wide rather than seventy, as formerly proposed. The right-of-way width will be ninety feet, as proposed in the original design.

Seven persons who testified at the hearing reside in the Romaine Village mobile home subdivision. Most expressed their wish that the project be extended to serve Romaine Village, saying that they found turning to and from the highway both difficult and dangerous. Design alternatives suggested by Romaine Village residents were to (1) extend the project to the Burlington Northern Railroad overpass (about a mile south of the project section), (2) extend the project about 1500 feet, (3) construct a left-turn refuge at the Romaine Village entrance, (4) construct a deceleration lane at the entrance, and (5) install a caution light at the entrance.

It appears that accident statistics do not justify extension of this project, given funding constraints and priorities established by the Six-Year Highway Improvement Program. Highway Division accident records reveal that there were no reported accidents at the Romaine Village intersection for the period from January 1, 1973 through June 30, 1977.

A public hearing was held on the restriping of the Railroad Avenue-Cleveland Avenue section, March 2, 1977, during a meeting of the Bend City Commission. Three persons spoke, two opposing the project; the other reportedly did not take a clear stand. Six letters of comment were added to the hearing record, four supporting the project, one opposing it, and one suggesting a

one-way couplet system instead.

At the earlier informational public hearing, November 1976, the majority of those commenting opposed the restriping, feeling that removal of parking would hurt businesses. In order to assuage any economic losses, it was decided, at the Bend City Commission meeting April 6, 1977, to delay the restriping until the adjacent southerly section was widened. This delay was deemed sufficient for businesspersons to take any measures necessary to prepare for the loss of on-street parking.

Basis for Negative Declaration

This project is not expected to cause significant adverse changes in land use, planned growth, development patterns, transportation services, or natural or human-made resources. Rather, the project will contribute to ongoing land use trends. The project will not require taking of any parklands, nor will it in any way affect parklands. The project will not have a significant adverse effect on air quality, noise, or water quality. Although there will be long-term increases in traffic volumes and noise, these increases are not considered significant in view of present conditions. Mitigation measures will be investigated to relieve noise at the Central Oregon Christian School. Testimony received in response to the October 20, 1977 hearing was very favorable to the widening project. No opposition was registered.

It is the conclusion of the Oregon State Highway Division that this project constitutes a "major action," as defined in the Federal-Aid Highway Program Manual, volume 7, chapter 7, section 2, and that implementing the proposed action will not have significant impact upon the quality of the human environment. The Highway Division has concluded that the environmental impacts are not of a magnitude to require processing of an environmental impact statement.

Concurred in by:

E J Hunter
Technical Services Engineer

12-8-77
Date

L H Green
FHWA Division Administrator

12-29-77
Date

APPENDIX A

Relocation Benefits[13]

Eligibility

It is most important to note that eligibility to receive any of the following benefits is not complete until the affected property has been purchased by the State.

General Moving Expenses

Service charges for reconnecting utilities are reimbursable, except under "Schedule Move Procedures."

Individual and Family Moving Expenses

Any individual or family displaced by a State Highway Division project is entitled to receive a payment for reasonable expenses of moving personal property a distance not to exceed a 50-mile radius or to the nearest available and adequate site.

In order to obtain a moving expense payment, a displaced person must file, within 18 months after moving, a written claim with the State Highway Division on a form provided for that purpose. In some cases, where it is to the benefit of the displaced person, a written arrangement with the State Highway Division will allow the displaced person to present an unpaid commercial moving bill, and the State Highway Division will make payment directly to the mover. Residential moving costs may also be claimed according to a set schedule based upon the number of rooms of furniture to be moved.

[13]From Oregon State Highway Division, Moving Because of the Highway? (Salem: DOT, March 1977).

Residential Moving Schedule

Unfurnished (Relocatee owns furniture)

$ 60 (1 rm)	$ 140 (3 rm)	$ 220 (5 rm)
$ 100 (2 rm)	$ 180 (4 rm)	$ 260 (6 rm)

Seven or more rooms - $ 300

Furnished (Relocatee does not own furniture)

$ 15 per room up to a maximum of $ 300

Mobile Home Moving Schedule (Based upon total floor area)

Amount of Payment	Square Foot Area
$ 100	Up to 200 sq. ft.
$ 200	201 sq. ft. - 600 sq. ft.
$ 300	More than 600 sq. ft.

In addition to the moving payment based on a room count or mobile home square-foot area, a dislocation allowance of $200 will be paid.

Business, Farm and Nonprofit Organization Moving Expenses

Displaced businesses, farm operations, and nonprofit organizations are entitled to receive actual reasonable moving expenses for moving personal property a distance not to exceed a 50-mile radius or to the nearest available and adequate site. The actual and reasonable cost of searching for a replacement location may be claimed up to $500 for a farm or business and up to $100 for advertising sign companies. Such payments must be supported by receipted bills or other evidence of expenses incurred.

As an alternate moving expense procedure, in the case of a self-move, the business, farm operation, or nonprofit organization may be paid an amount not to exceed the lower of two estimates secured by the State Highway Division from competent moving companies.

Under certain conditions, businesses, farms and nonprofit organizations may receive payments for direct losses of tangible personal property resulting from the necessity to relocate.

In lieu of moving expense payments, a displaced or discontinued business or farm operation, except advertising sign owners, may, under certain conditions, elect to receive an amount equal to the average annual net earnings of the business or farm operation during the two tax years immediately preceding the year in which such business or farm operation is displaced. The payment cannot exceed $10,000 and will not be less than $2,500. Those who choose the "in-lieu" payment are not eligible for any other relocation benefit payment.

Storage of Personal Property

Occasionally, unusual circumstances may make the storage of personal property mutually beneficial to the displaced owner and the State. The cost of such storage may qualify for a payment in addition to the actual moving expense payments. It should be clearly understood that those dislocatees accepting the schedule or in-lieu moving expense payment are not eligible to receive the storage expense benefit. This additional benefit requires ~~the~~ written approval from the State Highway Division and may not exceed twelve months.

Replacement Housing

A displaced owner-occupant of a dwelling actually owned and occupied by the owner for 180 days or more immediately prior to the initiation of negotiation for such property may be eligible for additional payments, the combined total of which may not exceed $15,000.

The replacement housing payment is the amount, if any, when added to the amount for which the State acquired his dwelling, equals the actual cost which the owner is required to pay for a decent, safe, and sanitary replacement dwelling or the amount determined by the State as necessary to purchase a comparable dwelling, whichever is less. Also, to compensate the owner for increased interest costs, he is required to pay for financing the replacement dwelling and for the actual closing costs incidental to the purchase of replacement housing.

A displaced owner-occupant of a dwelling actually owned and occupied by the owner for 90 days or more but less than 180 days or a tenant-occupant of 90 days or more immediately prior to initiation of negotiation for such property may be eligible for additional payments, the combined total of which may not exceed $4,000. This payment is the amount necessary to make a down payment on the purchase of a replacement dwelling and to reimburse the relocatee for the actual closing costs incidental to the purchase of the replacement dwelling. Necessary deposits for taxes and insurance are not considered as closing costs. In those cases where an owner-occupant of 90 days or more but less than 180 days or the tenant-occupant of 90 days or more chooses to rent instead of purchasing a replacement dwelling, he may, under certain conditions, become eligible for a payment up to $4,000 to enable him to rent a decent, safe, and sanitary replacement dwelling.

The rent payment is the increase in rent necessary to rent a comparable dwelling for 48 months or the amount determined by the State as necessary to rent a comparable dwelling for 48 months, whichever is less.

To be eligible for these benefits, the displaced occupant must occupy a decent, safe, and sanitary replacement dwelling within one year subsequent to

the required date of displacement from the dwelling unit acquired by the State Highway Division.

Upon request by the displacee a preliminary determination of any of the above benefits will be calculated and presented to the displacee.

Claims for housing additives and rent supplements must be made in writing on a State Highway Division form supplied for this purpose and must be filed with the State Highway Division no later than 18 months after the date of displacement or six months after final adjudication of a condemnation case.

Before payments for any replacement dwelling benefits can be made, the replacement dwelling must be checked by State Highway Division personnel to ascertain that it meets the decent, safe, and sanitary standards established by the Federal Department of Transportation. We advise that this determination be made prior to making a commitment to rent or buy. It should be understood that the replacement dwelling decent, safe, and sanitary inspection that will be conducted by agency personnel is for the sole purpose of determining a relocatee's eligibility for a relocation payment.

Possession

No person lawfully occupying real property shall be required to move from his home, farm, or business location without at least 90 days written notice. This notice will not be issued prior to the State having the right to legal possession of the property.

Appeals

Any relocatee who is dissatisfied with any ruling on his eligibility or claim for any relocation benefit payment shall have the right of appeal.

Appeal forms can be secured from the right-of-way agent who is handling the property acquisition. The Chief Administrative Officer of the Highway Division has delegated his review authority to a two-member board. Appeals must be filed with the board within 90 days after the State acts on a claim or denies eligibility for a benefit.

Any person making such an appeal will be given full opportunity to be heard at an appeal hearing arranged to examine his complaint. A prompt decision will be provided giving reasons in support of the result reached. The decision by the board will be considered as final.

Right-of-Way Agent

Relocatees will be given detailed information regarding their eligibility and possible benefits by the right-of-way agent assigned to acquire the property.

1970 RELOCATION ACT -- MONETARY BENEFITS

RESIDENTIAL

Owner-occupant of 180 days or more prior to initiation of negotiations for the parcel.

Housing Additive	$15,000 maximum
Including	
Costs incidental to purchase of replacement dwelling	
And Including	
Increased interest cost on replacement dwelling	
Or	
Rent Supplement	$4,000 maximum
Plus	
Actual reasonable moving costs	Actual
Or	
Moving costs based upon schedule	$ 500 maximum
Or	
Storage of personal property up to twelve months, when necessary	Actual

Owner-occupant of 90 days or more but less than 180 days and tenant-occupants of 90 days or more occupancy prior to initiation of negotiations for the parcel.

Rent Supplement	$4,000 maximum
Or	
Down payment benefit and costs incidental to purchase of replacement dwelling	$4,000 maximum
Plus	
Actual reasonable moving costs	Actual
Or	
Moving costs based upon schedule	$ 500 maximum
Or	
Storage of personal property up to twelve months, if necessary	Actual

BUSINESS & FARM

Owner-occupants and tenant-occupants entitled to same benefits. Must occupy at initiation of negotiations for the parcel.

Actual reasonable moving costs	Actual
Or	
Negotiated moving cost payment not to exceed lower of two estimates secured by agency	No more than low estimate
Plus	
Tangible personal property loss due to relocation	Actual value or estimated cost to move, whichever is lower
Plus	
Reasonable cost of search for new site	$500 maximum $100 maximum for sign companies
Plus	
Storage of personal property up to twelve months, when necessary	Actual
Or	
Payment "in lieu" of all other benefits--requires approval of agency	Average of net earnings for two years prior to year of relocation $2,500 minimum $10,000 maximum

81-734-3772
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Appendix B

LEVELS OF SERVICE ON ARTERIAL STREETS
As defined by the 1965 Highway Capacity Manual

Level of Service "A" --Free flow (relatively; some stops will occur).
Average travel speed above 30 mph.

Level of Service "B" --Stable flow (slight delays).
Average travel speed 25-30 mph.

Level of Service "C" --Stable flow (acceptable delays).
Average travel speed 20-25 mph.

Level of Service "D" --Approaching unstable flow (delays tolerable).
Average travel speed 15-20 mph.

Level of Service "E" --Unstable flow (congestion, short periods of stoppages).
Average travel speed approximately 15 mph.

Level of Service "F" --Forced flow (jammed; stop-and-go).
Average travel speed less than 15 mph.

Average Travel Speed - The summation of distances traveled over a street section during a specified period of time, divided by the summation of overall travel times.

DESIGN NOISE LEVEL/ACTIVITY RELATIONSHIPS 1/

Activity Category	Design Noise Levels - dBA 2/ $L_{eq}(h)$	$L_{10}(h)$	Description of Activity Category
A 3/	57 (Exterior)	60 (Exterior)	Tracts of land which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B 3/	67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C	72 (Exterior)	75 (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
D	--	--	For requirements on undeveloped lands see paragraphs 11a and e.
E 4/	52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

1/ See Paragraph 8 for method of application.
2/ Either L_{10} or L_{eq} (but not both) design noise levels may be used on a project.
3/ Parks in Categories A and B include all such lands (public or private which are actually used as parks as well as those public lands officially set aside or designated by a governmental agency as parks on the date of public knowledge of the proposed highway project.
4/ See Paragraphs 8c, d, and e for method of application.

APPENDIX D

Letters of Determination From State Historic Preservation Office

ROBERT W. STRAUB
GOVERNOR

Department of Transportation
STATE HISTORIC PRESERVATION OFFICE
Parks and Recreation Branch
525 TRADE STREET S.E., SALEM, OREGON 97310

June 21, 1977

Pieter Dykman, Research Coordinator
Environmental Section
412 Transportation Building
Salem, Oregon 97310

Re: SCL-Golf Club Road (Bend)
The Dalles California Hwy.
Deschutes County

Dear Mr. Dykman:

This letter is in response to your cultural resources report assessing the impact of the above mentioned project on historic and archeological sites. After a careful review, we can offer the following information.

We feel that no historical resources of National Register listing or potential eligibility have been identified in the project area. We therefore feel that Public Law 89-665 and Executive Order 11593 have been complied with in relation to historical resources.

Because this is a sensitive area for archeological resources, a reconnaissance survey is necessary in order to determine whether archeological sites are present. As required by law, the State Historic Preservation Office can then officially comment on survey results and recommended salvage or other mitigation procedures.

Thank you for this opportunity to comment.

Sincerely,

David Powers for
Paul Hartwig

Paul B. Hartwig
Historic Preservation Coordinator

cjh

ROBERT W. STRAUB
GOVERNOR

Department of Transportation
STATE HISTORIC PRESERVATION OFFICE
Parks and Recreation Branch
525 TRADE STREET S.E., SALEM, OREGON 97310

DATE: October 18, 1977

Pieter Dykman
Environmental Coordinator
416 DOT Building
Salem, OR 97310

RE: Railroad Avenue-Cleveland Avenue
(S. Third Street) Bend

Dear Sirs:

This letter is in response to your request for official comment from the State Historic Preservation Office regarding impact of your federally funded project on cultural resources.

After a careful review of your proposed project, our office can offer the following comments. We feel the area of the project is not of historic significance and since ground disturbance of previously undisturbed ground is minimal, this office feels that there will be no likely impact to archeological resources. We therefore feel no cultural resource surveys are required and that the project is in compliance with Public Law 89-665 and Executive Order 11593.

Sincerely,

David G. Talbot
State Historic Preservation Officer
State Historic Preservation Office

EL:ko

BIBLIOGRAPHY

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895c

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

12-29-77

FEDERAL PROJECT NO.
RF-108(11)

STATE PROJECT NO.
See Below

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
RF-74 & U-210

COUNTY NAME
Deschutes

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. F. B. Klaboe
Chief of Operations, DOT
State of Oregon
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	12-29-77	Primary 4	Primary 4

GENERAL LOCATION:
"SCL Bend - Golf Course Road"

GENERAL DESCRIPTION OF WORK:
Preliminary Engineering

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
- ☐ LOCATION ONLY
- PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
- ☒ PREPARATION TEC NTE $5,000 - FF $3,900
- ☐ OTHER (Specify)

- ☐ ACQUISITION OF RIGHT-OF-WAY
- CONTRUCTION - ADVERTISE FOR RECEIPT
- ☐ OF BIDS
- ☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's 11-29-77 letter.

NOTED
F. B. KLABOE

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
12-29-77	G K Hansen	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

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Salem, Oregon
December 27, 1977

J. H. Verstoeg
Head of Engineering

J. B. Boyd
Right of Way Manager
BUILDING

Road South City Limits-Murphy Rd.
Section
The Dalles-California Highway
Deschutes County

Attached are 30 more Files (86 Parcels) and an authorization covering R/W for the middle portion of the subject project (Station 116+20 to 170+00).

Files 30036 and 30039 (Hayes Ave. connection) and Files 30044, 30045, 30048 and 30049 (vicinity of Station 147) have not been completed because of incomplete field information.

This submittal will make a total of 66 Files submitted to date, leaving 6 to complete the project.

RH:

Floyd O. Scott
R/W Asst. Engineer

Attach.

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Salem, Oregon
December 13, 1977

Bend South City Limits-Murphy Rd.
Section
The Dalles-California Highway
Deschutes County

J. H. Veresteeg
Head of Engineering

J. B. Boyd
Right of Way Manager
BUILDING

Attached are 17 Files (29 Parcels) and an authorization covering right of way for the Southerly third of the subject project (Station 170 to 210), which is scheduled for the 1st quarter of 1979.

The balance of the descriptions will be submitted later, as we are waiting for field information.

Please advise if you need prints of the R/W map at this time, otherwise we will submit prints when the total map is completed.

Existing Files 46908 and 47653, formerly established for Highway Beautification, have been revised and now cover R/W for this section. They are being submitted via the "Revision Request" route.

BY:

[redacted] O. Scott
R/W Right. Engineer

FOS:cg

Attach.

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ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

November 25, 1977

TO G. L. Green, Division Administrator
Federal Highway Administration

NOTED
E. S. HUNTER

Original Signed By
D. E. Swan

FROM D. E. Swan
Federal Aid Manager

SUBJECT Study Report
Project No. U-RF-108(11)
Bend SCL-Murphy Road Section
The Dalles-California Hwy.
Deschutes County

Attached for your information is a copy of the study report with supporting documents for the subject project to aid you in your evaluation to determine if the final Negative Declaration adequately addresses the proposed location/design.

Upon FHWA's adoption of the final Negative Declaration we request location/design approval and authorization to proceed with the portion of preliminary engineering under Project No. U-RF-108(11) necessary to obtain PS&E approval at an estimated total cost of $5,000 with obligation of $3,900 in federal funds.

JLG:ljt
Att.

cc: H. S. Coulter
[redacted]
F. E. Terpin
Gary Potter
J. H. Versteeg
R. W. Ellison
C. M. Williams, Region 4
W. Wakerlig

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FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Bend, Oregon, 97701

November 16, 1977

FILE: 9-1951

FROM: Robert C. Pool
Regional Construction Engineer

SUBJECT: Bend South City Limits-
Murphy Road Section

TO: J. H. Versteeg
Road Design Engineer

We have reviewed the pencil draft of the study report on the South City Limits-Murphy Road Section, and offer the following comments.

1. We are concerned about the revision of roadway width from 70 to 74 feet. Drainage from a 70 foot section will be marginal and will undoubtedly give us some problems. A 74 foot roadway would just give us more problems. Also, a 4 foot shoulder will provide an area for bike riders to utilize, even though we could not sign it as a bike path.

2. A comment was made that there was no adverse testimony received at the hearing. I think the testimony from the Romaine Villagers which objected to the termination of the project short of Romaine Village turn-off could be considered adverse testimony.

3. We concur that extension of the project to the Romaine Village turn-off or the construction of a left turn refuge at this location would not be warranted.

RCP:pw
cc: Frank Terpin

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FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

November 14, 1977

FROM: J. H. Versteeg
Head of Engineering

SUBJECT: Bend S.C.L.-Murphy Road Section

TO: E. S. Hunter
Technical Services Engineer

Copy #9860

Floyd Scott has prepared the attached bar graph which compares the track record of the recently completed Ross Island-52nd Avenue easement and the Bend S.C.L.-Murphy Road Project. Both of these projects had a high priority and both are similar in complexity, number of parcels and number of right-of-way files. Based on this comparison the right-of-way descriptions will not be completed until the middle of January.

Floyd and I have discussed this process to see if it could be shortened and did not come up with anything constructive. The problem seems to be that we started too late on a complicated right-of-way description writing problem.

We do plan to program the right-of-way acquisition files in batches with the FHWA. This should help the workload at the regional level and may help in shortening the right-of-way acquisition time.

JHV:jh

NOTED
E. S. HUNTER

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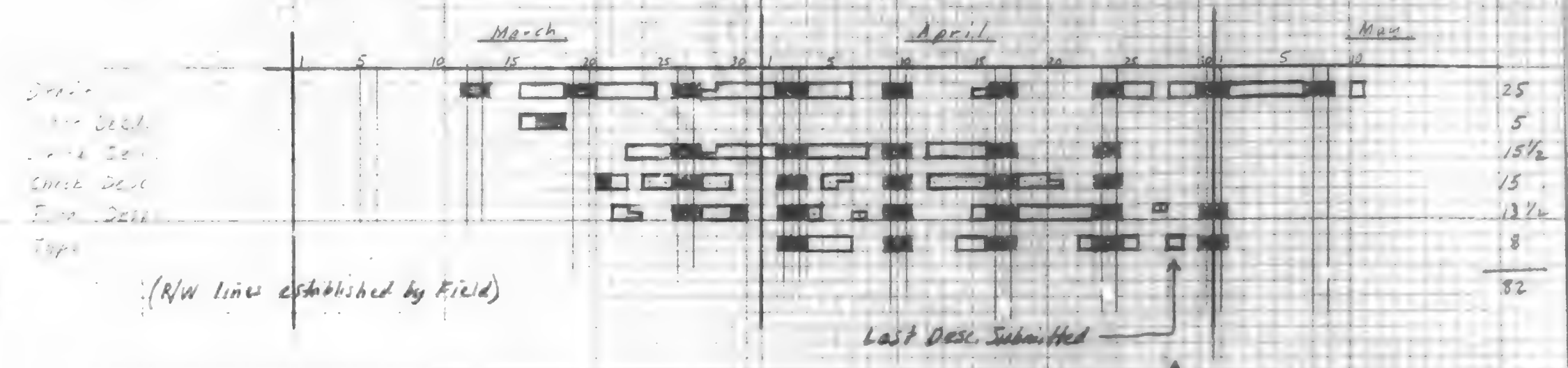
Actual { Ross Isl. Br. - 52nd Ave. 83 Piles 115 Parcels

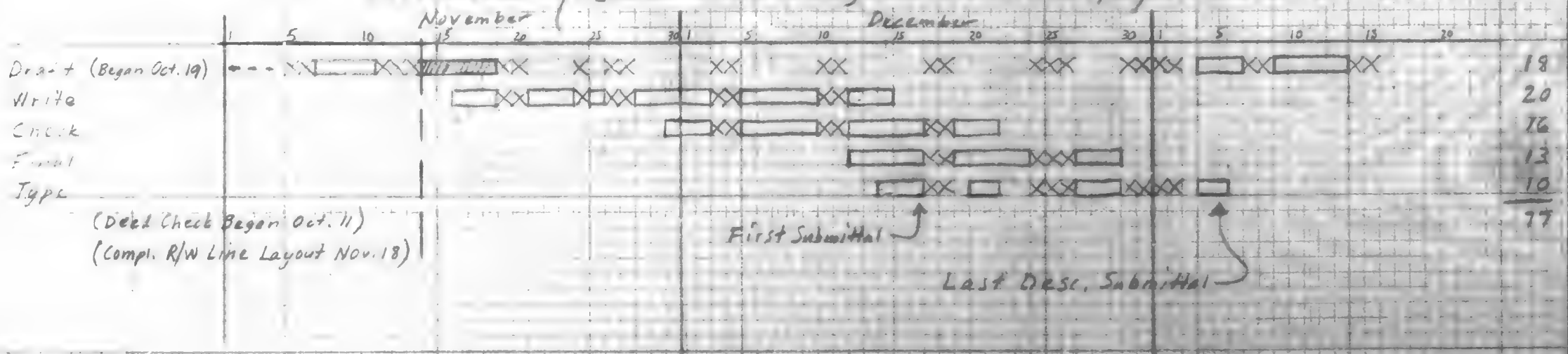


Nov 14-May 10 -- Calendar Days 55

" " Work Days Avail. 40 (Desc. Compl. in 32 Days)

" " Man Days Worked 82

Estimated { Bend South City Limits - Murphy Rd 65 Files 127 Parcels



Nov. 14 to Jan. 13, incl. - Calendar Days = 61

" " - Work Days = 41

" " - Man Days = 77 (Est.)

11-14-77

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FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: 9-1951

Bend, Oregon 97701
October 21, 1977

FROM: Carl M. Williams
Regional Engineer

SUBJECT: Bend SCL-Golf Course Rd. Project
The Dalles-California Highway
Prefix No. 9-1951

TO: H. Versteeg
Road Design Engineer

Defending oneself is something I try to ignore but the Commission's interpretation of the Bend delegation's action causes me to do.

The Preliminary 6-Year Plan in 1974 showed Bend ECL-Ward Road as the primary target. This was a former hot priority around Bend, fostered by a large group.

It was largely at my suggestion and urging that the Bend 6-Year Plan meeting adopted the Bend SCL-Golf Course Road project on the 1975 6-Year Plan.

I also instituted a bloody and emotional battle to remove parking on South Third Street from the railroad underpass to Cleveland Avenue.

On August 6, 1975, I was told to proceed with an Authority for Survey and Assessment. The Assessment was approved by the Feds on October 3, 1975. Survey was staked January 9, 1976. Survey was sent to Region on May 28, 1976.

Drainage problems followed and after receiving additional funds, Region received the survey again on November 30, 1976. It was submitted to Salem on December 1, 1976. Base design was approved on January 10, 1977. Field check of traffic signal plans, June, 1977.

Still working on the Negative Declaration, August, 1977. Study Committee reviewed rough draft, August 8, 1977. Circulated Negative Declaration, September 18, 1977. Set up corridor-design hearing, October 10, 1977.

I claim I resurrected this project in 1975. It was surveyed and environmentally investigated with reasonable celerity. The public hearing was set up with a minimum time lapse after the Feds approved the preliminary Negative Declaration.

I resent the City of Bend adopting this project as a holy mission when they had to be reminded that it needed doing. I submit we have done a reasonable job and need not wear sack cloth and ashes forever.

CMW:mr

Versteeg ✓
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Salem, Oregon
October 18, 1977

W. E. Cole
Design Engineer Supervisor

R. C. Pool
Region 4 Construction Engineer

Attention: George Martin
Resident Engineer

Bend SCL-Murphy Road
The Dalles-California Highway
Deschutes County

Enclosed please find a copy of the hardcopy on the subject project showing the proposed relocation of Brosterhaus Road (Parrell Road) on the west side of the existing highway.

Please have this alignment staked, cross sectioned and profiled so we can evaluate the right of way needs.

Terpin

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Rd Mtl 10-19-77
for information
this and comply
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Dan

ASSISTANT DESIGN ENGINEER

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FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon
October 3, 1977

FROM: Donald E. Shaffer
Bicycle Route Engineer

SUBJECT: SCL-Golf Club Road (Bend)
The Dalles-California Highway
Deschutes County

TO: J.H. Versteeg
Head of Engineering

I have reviewed the proposed typical section for above project and would like to see the shoulders constructed six feet in width rather than four. This would not only allow for the striping of bike lanes but give the motor vehicle deiver enough room for emergency stopping.

It would seem that the base on the section between Stations 103+00 and 192+00 should be 'daylighted' just as it is from Stations 192+00 to 202+50. This would be compatible with the 6-foot shoulders.

DES:jp

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Need to review this as one of first items after assigning project.
Don

?

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September 30, 1977

Mr. Michael P. Hollern, Member
Oregon Transportation Commission
c/o Brooks-Scanlon, Inc.
P. O. Box 1111
Bend, OR 97701

Dear Mike:

Enclosed is a critical-path bar graph covering the Bend South City Limits-Golf Course Road project which was the subject of a delegation at the last Commission meeting.

The preliminary environmental statement was approved by the Federal Highway Administration September 1, 1977, and a public hearing is scheduled for October 20, 1977.

The critical path indicates that it would be possible (with an extremely concentrated effort by all personnel) to contract this project in about January-February, 1979. A contract awarded at that time would give the contractor all of the 1979 construction season to complete the project.

I have instructed that everything possible be done to meet this schedule and requested our Region Office to advise the local officials of our intentions.

Sincerely,

F. B. Klaboe
Assistant Director for Operations

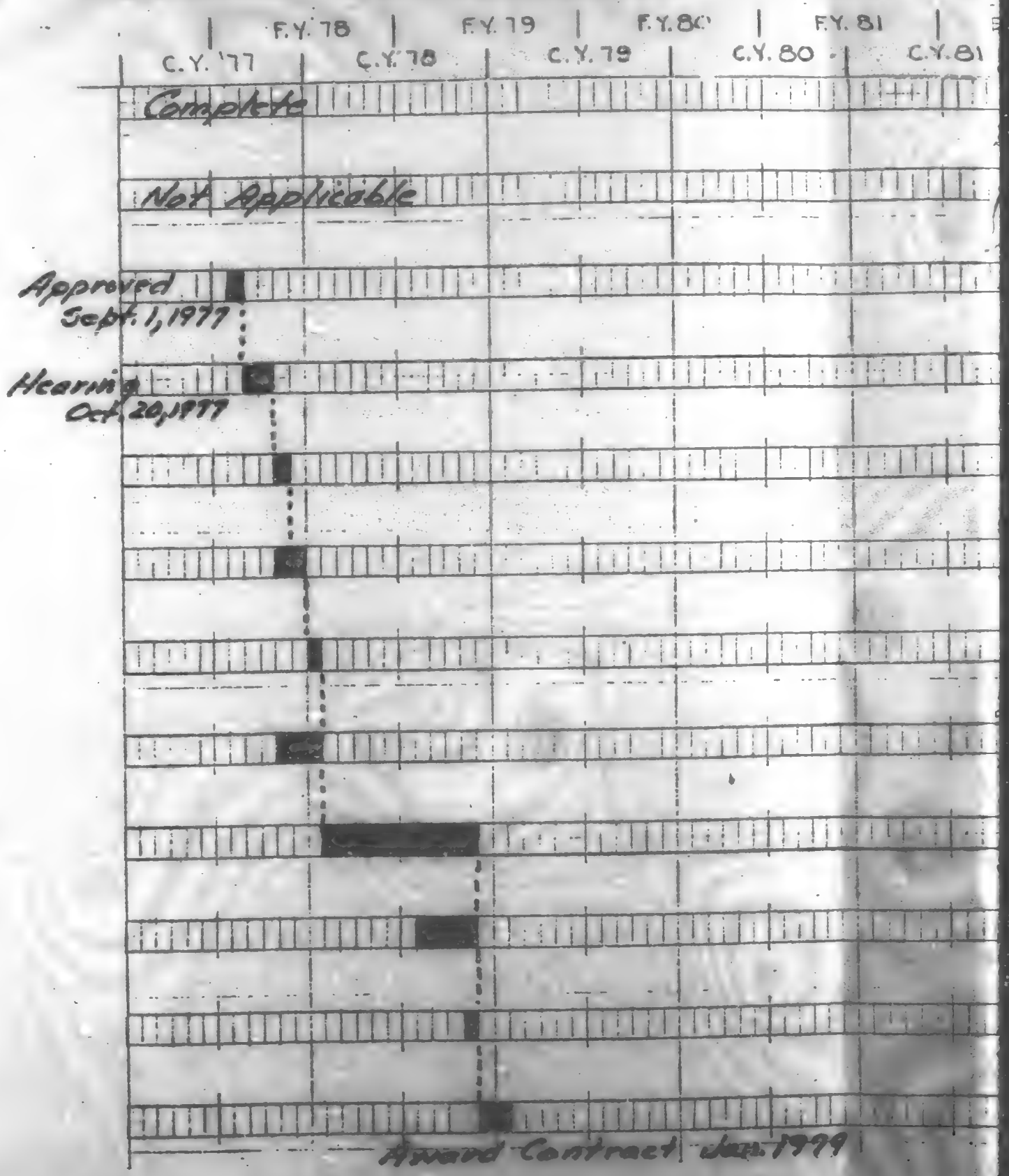
Enc.
R. A. Burco
bc E. S. Hunter
J. H. Versteeg
Carl Williams (Please advise local people.)

ESH:ja srb

cc Boyd
Potter
10-3-77

Project: Dead - Golf Course Rd. Category: III Major Work: G & P
Highway: The Dalles - Cal. Funds: F.A. Cost: $ 1,700,000
County: Deschutes

1. Complete field location survey
2. Draft environmental impact statement
3. Prepare negative declaration
4. Prepare exhibits, advertise and hold combination corridor/design hearing.
5. Analyze hearing transcript and prepare study report
6. Complete final environmental impact statement
7. Obtain approval for project from Transportation Commission and Federal Highway Administration.
8. Complete preliminary plans and right of way descriptions
9. Negotiate and purchase right of way.
10. Complete final plans.
11. Prepare specifications.
12. Advertise and award contract.



- Golf Course Rd. Category III Major Work G. & P

Dalles - Cal. Funds F.A. Cost $1,700,000

chutes

	C.Y. '77	C.Y. 78	C.Y. 79	C.Y. 80	C.Y. 81	C.Y. 82	C.
	F.Y. 78	F.Y. 79	F.Y. 80	F.Y. 81	F.Y. 82	F.Y. 83	
cation survey	Complete						
ntal impact statement	Not Applicable						
declaration	Approved Sept. 1, 1977						
, advertise and hold ridor/design hearing.	Hearing Oct. 20, 1977						
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J. H. Versteeg, J. B. Boyd,
D. H. Moehring

September 30, 1977

E. S. Hunter
Technical Services Engineer

The Bend South City Limits-Golf Course Road project on The Dalles-California Highway has seriously fallen behind schedule and cannot be contracted in fiscal '78, as indicated on the Six-Year Program. There is enclosed a critical-path bar graph which indicates the time frames all necessary steps in preliminary engineering must be completed by in order to contract the project in January of 1979.

Please do everything necessary to adhere to this critical path to ensure contracting on the date indicated.

You will note that completion of the preliminary plans and right-of-way descriptions is to be completed prior to FHWA and Commission approval. In order to do this, some final plan work will need to be completed prior to the time it is eligible for FHWA participation and therefore will be charged to State fund preliminary engineering.

You will also note that the final plans are to be completed (including specifications) by December 1, 1978, at which time right-of-way is supposed to be clear. Completion of the final plans and specifications will also be charged to State P.E.

Please give this project your direct attention in order that these dates can be met.

ESH:ja

Enc.

cc F. B. Klaboe
Carl Williams (enc.)

895-0

DATE: September 28, 1977

TO: E. S. Hunter
Technical Services Engineer

FROM: F. B. Klahoe
Assistant Director for Operations

SUBJECT: Bend South City Limits-Murphy Road Section

The delegation from Bend appearing before the Commission last week were highly critical of the "slippage" that has occurred on the Bend South City Limits-Murphy Road Section. In particular, they seemed irked that they weren't kept informed of delays that occurred.

Please analyze our ability to advance the job from the estimated May-June 1979 letting date and advise me of the results.

I will need this report to send to Commissioner Hollern who also wants to know why the job was delayed.

FBK:srb

8750

OREGON TRANSPORTATION COMMISSION

Delegation City of Bend, Bend Chamber of Commerce, Deschutes County and City of Redmond Re: Four-laning of South City Limits-Golf Club Road and improvements of the Bend-Redmond Highway

Date September 22, 1977

Time 11:00 a.m.

*(PLEASE PRINT)

Name	City or Town	Capacity
RICHARD A. CARLSON ✓	BEND	CITY COMMISSIONER
Rod Smith ✓	Bend	Chamber of Commerce
Bob Montgomery	Deschutes County	Commissioner
RONALD L. BRYANT ✓	REDMOND	MAYOR
ART JOHNSON ✓	Bend	City Manager

BEND DELEGATION (September 22, 1977 Commission Meeting)

checked Cpies

JACKSON: We have a delegation from the City of Bend. Did they arrive? Fine.

ROD SMITH: Mr. Chairman, members of the Commission, I'm Rod Smith from Bend. We in Central Oregon feel we have a traffic problem. Problems that are growing faster than the solutions, to the point they're becoming big problems and can't be solved with small jobs and band-aid approach.

I have an assemblage of persons with me today, Robert Montgomery, Chairman of the Deschutes County Commission; Dick Carlson, Bend City Commission; Ron Bryant, Mayor of the City of Redmond; Art Johnson, City Manager of Bend; and I represent the Bend Chamber of Commerce. These people have compiled facts and figures that will show you that our traffic situation is greater than over 3/4ths of the freeway mileage in the State of Oregon, greater than four lane sections in Oregon such as in the Sandy area, Sweet Home-Lebanon area, is greater than areas of new highway construction recently and planned for the future, such as in the Wasco area, Coquille, Bandon or Coos Bay. We do not want to sound unappreciative of the cooperation you have given us in the past, but get a little upset when our local engineer talks of extending the time of accomplishing projects in our area. We feel the only way to solve the fast-growing problem is with some large projects and ask of you of a four-lane highway from south of Bend to north of Redmond. I'd like to give you a sheet here with some figures that we have compiled and turn it over to Ron Bryant, Mayor of Redmond.

[illegible]: Thank you very much Rod. Commission members, my name is Ron Bryant: I am Mayor of the City of Redmond,

and I'm the first of three people who is going to take just a couple of minutes to speak to you about our concerns for the highway that runs from the north end of Redmond to the south end of Bend. I'll speak specifically on the Redmond area and the problems there and then we'll have Dick Carlson speak on the Bend problem and the County Commissioner speak, Bob Montgomery, speak on the County problem.

I have here a map of the highway and showing 1975 average daily counts, and the 1976 average daily count for traffic in the Redmond area. I think as you can see from that, and this does not take into account the 1977 count which has grown even dramatically more, we suspect that those figures will be available to us in October. But as you can see, looking at the count in this general area here, the south end of Redmond and what we call Maple Street and it's now within the city limit, there is a 24% increase in traffic there and at the next intersection down about two blocks there is a 22% increase. I think probably what you need to know is that the City of Redmond has grown over 50% during the last year. Population jumped from 3,990 some people to almost 6,000 as of the first of this year. The results of this traffic is the people trying to get to the residential areas within the bounds of the new city on the south and north areas. Let's see, where's the other map. As close, you can get a picture of what we're talking about; you have the residence area & O'Neil Junction sits out here. O'Neil Junction is the point where the Highway Department recently saw fit, several years ago, to four-lane, over the top of the hill and down the other side. The problem is it's two-lane from there back into the City of Redmond. At O'Neil Junction there are four major subdivisions that

turn left across that highway that have been constructed in the last three years. Those subdivisions comprise something in excess of several hundred lots that have developed so that the traffic vacating Redmond to that area going to O'Neil Junction and turn off and at that location a tremendous amount of traffic is being put on Highway 97 on that two lanes.

The second major problem is at Maple Street which is right near where we were just talking about. Four major subdivisions of approximately two hundred lots, which have now been built within the last three years has increased that. In the last year an additional, approximately 30 to 40 new homes have been constructed in there. The only way into that subdivision is off of Highway 97 at Maple. There are no other ways into it from this area and there is a canyon here if any of you that are familiar with the area. As a result, a tremendous amount of traffic is generated to that end and also some real safety problems because it's two lanes with no turn lane at that location.

Going to the other end of Redmond in this area down here that we're talking about here in this particular area there is a 17% increase in traffic over a year ago. In the last year, there have been nine proposed subdivisions comprising of approximately 1,000 lots in that particular area, generating a tremendous amount of traffic out Highway 97 to the south to get into that particular area. All of this growth is a result of a sewer project that is being built and a requirement by DEQ that everybody get on to sewers by 1990 and as a result, sewers are being constructed within the city area and housing is unable to keep up with the demand. Consequently, when you're dealing with housing and people you're dealing with traffic problems that are of unknown proportion into the future and I think

that we're having those problems now and we're going to see the '77 problems be even greater as a result of those. Mike.

COMMISSIONER HOLLERN: Ron, do you see the responsibility for providing that kind of highway access resting solely with the State, given that the City and the County approve the subdivisions to put the people there?

RON BRYANT: No. As a matter of fact, the city has been attempting to, in a couple of areas, to put through streets in order to allow access so that there would not have to be the traffic exiting from those subdivision areas onto 97. But we're unable to do it because a lot of those subdivisions are being built into the County not within the City, but are outside of the bounds of the City. The two lanes that used to be there, handling the number of people in there might just - won't do it any more.

COMMISSIONER HOLLERN: That's local traffic not through traffic that you're primarily talking about.

RON BRYANT: Well, we're talking about not just local, we're talking about - yes, I think that's probably fair. We're talking about the influx of people into the City of Redmond, the growth rate of the area in the last couple of years and particularly this year. Redmond High School this year has about 1200 students in it. This year there is 200 additional students that they don't even know where came from. They weren't even anticipated, it was over and above what they projected growth wise. The Junior High School had 75 more students than they had projected on percentage of growth and one they knew were coming in. The result of that is, some people are saying well it's a result of the sewer project but that's not so, only one of the new 75 children over and above what they projected coming into school - Junior High - was related to sewer project. It's now

people moving into the area which makes Deschutes County, Redmond-Bend area probably the second fastest growing area in the State of Oregon. As a result, the traffic problems in the two lanes that we're having just is not keeping up with that pace.

I'd like to call on Dick Carlson of the Bend City Commission to put before you the Bend problem.

DICK CARLSON: Morning. Since I've talked to you in May, or whenever it was you were in Bend, I'm going to talk to you about something else now. We're doing quite well with our project within the City; the Engineering Department is working on it, they're I think making progress. Hopefully next summer some of those things that we outlined to you will begin to take place within the City.

Our concern today is more in regard to Highway 97 and specifically I want to talk to you about south of Bend. There is a project in the Six Year Plan, as I understand it, or is planned by the Highway Department for the improvement of Murphy Road, or I mean, excuse me, of 97 out to Murphy Road. Now Murphy Road is - show me where that is Art - well, below the map, but anyway it is in this southern area. Our main concern is to not have that project set back. We've had some rumors from the local engineer that that could go back aways and for heaven sakes it just can't. The growth of the City of Bend is south and east. That's where the people live and that's what's happening to our highway out there. If you can see, the bottom number there is pointing precisely at the area that we're counting about, 11,100 in 1975 and 17,700 last year and I guarantee you the growth is going right up at that rate now. Now there's - last year there was, like I say, almost 18,000 cars a day off of your manual. It's a two-lane road, a commercial road, it's a

dangerous highway. I plead with you, don't set that one back any further than it is/right now. We're waiting till '79 I believe now. Is that correct?

?: Right.

DICK CARLSON: And there's just a rumor that it might go back to 1980 or later. The City of Bend, in the negative declaration that I was reading there was a possibility of not improving. What might happen if we don't improve the road. Possibly by not improving the road the travel would not increase was one of the possibilities brought up in the negative declaration. It's not happening. There isn't any other road to go on. There is no other way for those people living out south of town to get into Bend. It's intersected with rivers and irrigation canals and all sorts of other problems. The City of Bend is not going to stop in its growth. We firmly know - it is. The telephone company says they projected 11% compounded annually growth in the City of Bend or in the metropolitan area for the next five years. The whole bedroom is out to the southeast, that's the road in.

COMMISSIONER HOLLERN: Dick, can I interrupt you for a minute? You said you heard a rumor that it was delayed until 1980. Up until last week I had assumed that it was on the construction [illegible] for next summer, has been for a couple of years now. Before [illegible] this morning we were given a draft of the preliminary [illegible] of the Six Year Plan and in fact it is now scheduled for [illegible] and my question is what happened there?

[illegible]: It's been scheduled. The best we [illegible] in a schedule that in May - June area of 1979 and that's just [illegible] of having to buy the right of way. We're going to be holding

a hearing, a design hearing in October of this year and there is a considerable amount of right of way to buy and things to take care of. Now we will try to advance it prior to that date, but now our most optimistic guess is May or June of 1979.

COMMISSIONER HOLLERN: Well it says '80 in the book.

FRED KLABOE: Starts in July of 1979 so -

COMMISSIONER HOLLERN: At best that seems to be an unfortunate communications problem with the local people who weren't aware of any serious slippage like that until a couple of weeks ago.

CHAIRMAN JACKSON: You're right, you're still talking about '79 though.

BURCO: You're talking about calendar '79, it's fiscal '80.

CHAIRMAN JACKSON: Yes. Calendar '79, you're still talking in the same ballpark.

COMMISSIONER HOLLERN: You're saying Fred it would start in May-June 1979?

FRED KLABOE: In 1979.

COMMISSIONER HOLLERN: To be finished -

HOLLERN[illegible]NER WALSH: What, Fall '79 which is the first part of Fiscal '80.

WA[illegible]: Mike, the understanding there was [illegible] it would in the summer of '78?

[illegible]ER HOLLERN: My understanding, up until a co[illegible] I guess was that it was all on schedule to be completed next [illegible]. I may have had bad information but that's what came out [illegible].

[illegible]: It has slipped back. I can't be

specific as to when we thought it was going to be, but I know it was before we were going to get it, that the rumor of it going any further is frightening. I think that's the main thing I wanted to point out to you that we are frightened of that thing being moved back. We just don't think it can be.

COMMISSIONER WALSH: I was just trying to pin down are we - it's your concern that it not be moved back further than '79 or the fact that it's -

DICK CARLSON: We need it now, you know, but obviously the 1976 figures are 17,000 on anurban, two-lane road is heavy traffic.

COMMISSIONER WALSH: Fred, as I understand it, you know from where we sit today, that getting it out to contract by May of 1979 is as soon as is conceivably possible?

FRED KLABOE: We made - yes - we did make an another analysis on how tight we can screw this thing down, performing all the Federal regulations on buying right of way, which you probably know is a developing concern to us over the time that these things take and that's our best guess at this time.

COMMISSIONER WALSH: So it's not a dollar thing, it's [illegible] a procedural question.

[illegible]: Good, that's good to hear. I'll [illegible] Commissioner Montgomery. He's going to tell you about [illegible] feel that the whole road, Highway 97, between Bend and Redmond [illegible] be four lanes and give you some solid reasons I think.

[illegible]: Good morning gentlemen, my name is [illegible] Montgomery, I'm Chairman of the Board of Commissioners in Deschutes [illegible]. I would like to thank you for allowing us a time on your very

full agenda. I'll try to be very brief and not be repetitious of what the people before me have said.

One of the main items we're trying to get across is not to mesmerize you with figures, rather with facts and the tremendous growth in our community. I have personnally lived in the Bend area about 8 or 9 years. I love it over there and I've found out in the last two or three years so do thousands of other people, and as you can see they are moving in. These figures as they've explained earlier - one typical one here - I don't know whether you are familiar with Bend, some of you are quite familiar. This is where the Safeway Store is, now this is average, but during lunch time that's probably 40,000. That right, Mr. Johnson?

ART JOHNSON: That's right.

BOB MONTGOMERY: So, this is the average daily traffic, but at 40,000 that stop light is sometime backed up 8 or 10 blocks that's waiting the light to light. This is in my experience just happened in the last two or three years where it's usually getting to be quite bad, in fact it's dangerous. Give you some few figures on the growth of our County, for instance the month of August, [illegible] County, and this is the County only, not the City of [illegible] or Sisters, they have their own figures, we issued [illegible] permits, approximately 220 mobile home placements [illegible] a 50% increase over last year. The month of September [illegible] experiencing the same type growth if not more. And if the [illegible], if we don't get some snow we'll have the continued growth. [illegible] we'd all rather have the snow. Air West also has acknowledged [illegible] and on November 1st, they're going to be doubling their [illegible] in and out of Redmond, doubling their flights - that means

there will be two more, but that's great, we're glad to have it. With the airport in Redmond, obviously this will increase the Bend-Redmond traffic considerable. And also in Bend we have Central Oregon Community College and we have three new movie theatres in one building. The point I'm mentioning is the City of Redmond has no movie theatres, they have no college so there's plenty of traffic between Bend and Redmond in the evening going to and from personal things as well as business. The one point that this might bring out is this is not all tourist traffic either, it's people who live there, trying to get from one place to the other. We're also very fortunate in the central Oregon, mainly in Bend, is having a brand new medical center which is becoming probably the medical center for eastern Oregon. This of course is adding to our growth and it's also adding to the traffic coming from as far away as Burns, Madras, I think we even get them up from Klamath Falls, so it's all of 97 up and down that's coming in. Because of this growth, Bend and Redmond are becoming more dependent on one another. One has one thing, one has the other so that the traffic is coming up and down continually. Obviously the citizens of Deschutes County are fully aware of this because I think all you gentlemen I'm sure you must have noted that we are not abit afraid to pay for this, as [illegible] of the few counties who voted to support the tax measure last year. Unfortunately it didn't pass, we're hoping it will pass this year. And I think you'll get the same support from our citizens - [illegible] the problem.

I guess what we're trying to get across is this is not [illegible] growth, granted we have plenty of tourists and thank God for them, but traffic is created by the people who live there.

Deschutes County is aware of this because we have a $3 million budget to maintain our own County roads which is one of the few counties we share it with the cities. We have a formula and we give the cities about a half a million dollars.

That's about all I have other than I guess the only way we can really express our feeling is to come before you gentlemen and we do appreciate the time very much. If you have any questions I'm sure anybody will be happy to answer them. Thank you.

CHAIRMAN JACKSON: Thank you. I think the Commission as a result of their trip over there last summer or last spring are very familiar with the problem and we're also familiar with the fact that to beat the major problem of 97 that we're talking about $25,000,000 which, on the basis of our financial problem at the moment, it's pretty hard to fund. About all we can do is to back away at this thing and the unit that's on '78-'79 and if we're fortunate in the outcome of our May election of course we can expedite additional construction in the area. That's about where we stand.

CARLSON: May I ask one question? We're speaking of at least 15 miles of road approximately. I hear the figure $25,000,000 is that what it costs to build, about $1½ million per mile?

[illegible]: Yes.

[illegible] JACKSON: Fred, you've got it.

[illegible]: That is the cost-the estimated cost from south of Bend to north of Redmond to four lane everything in between. I think that was the original request that I heard [illegible] from the first speaker.

CARLSON: Six miles of that is already four lanes.

FRED KLABOE: That has been taken into account.

CHAIRMAN JACKSON: That's a lot of money.

BURCO: I'd like to - could I comment for a moment on that? One other thing that we're asked to be involved with as a State agency is of reviewing and working with local communities and the counties on the planning documents that they are preparing under the LCDC process and we are really trying to activate our own staff to work with you on those and we will have a responsibility as a State agency for reviewing the final products. The one thing that came up this morning that I am particularly concerned about that involves local government and really the interaction between County and City is the first problem that was brought up about the tremendous growth in the city of Redmond. Given the kinds of financial limitations we have and the range of problems you listed, the one that seems perhaps least relevant to our being able to afford it is the local traffic problem caused by subdivision approvals by Deschutes County and its relationship with the city limits of Redmond. And that is one that I think we really ought to get our [illegible] sitting down and talking about because first of all the [illegible] are very large and secondly there may be some much [illegible]er solutions that are a shared nature between the State, and [illegible]ty and City if we can get in early enough in that planning process particularly on residential subdivisions, to not be dumping [illegible]ial traffic directly on State highways. That one seems to be a situation we better try and address early through the planning [illegible]

COMMISSIONER WALSH: I just want to parallel on that - probably second only to Washington County, I would imagine Deschutes County is feeling exactly that pressure. Someone involved in the residential building industry don't particularly cherish it, but Washington County has found very recently to what they've had to do is go to a road assesament on a per unit or building permit issued basis. I think it's $250 per unit. TAPE CHANGE

COMMISSIONER WALSH CONT.: . . .the subdivisions. Whether it's Denney Road or something like that, some of that traffic is going to have to be taken care of, other than 97.

MONTGOMERY: Real briefly, I didn't want you to get the impression I'm not cooperating because I think Mr. Bryant will realize that we're giving them $120,000 this year to work on their city streets. (Inaudible - not at mike) -------- -------- , we are doing similar only we're not charging a time, we're making them build every road in the subdivisions up to County standards. And I think we're going to have to do more and more of that too, we realize that.

COMMISSIONER WALSH: What about outside the subdivision like you talk about that big southeast area and if they want to get back into town what the -

BRYANT: Let me tell you that we have a moratorium on subdivisions within the City of Redmond. I'm not talking about the subdivisions that are on the drawing board, there are dozens of those, people ranging from 23 to 150 lots, sitting there wanting to develop because the builders and the people coming in cannot find housing. And the city is not allowing them in because we're in the middle of a sewer project and we're talking about subdivision and building that has gone on within the last two years of subdivisions that had been previously approved over many years, but now because of sewers, those projects are being able to be built on for the first time. And those people who live there work in Bend or may work someplace downtown and even though we may require subdividers

to put in the entire road and pave the streets, which is part of what we are doing, there is still a certain amount of that traffic that has to go out on Highway 97 to go to Bend or to go to another particular part of the city and there is no way that we can prevent that. It's typical ingress and egress for those people that's generated the additional use on the highway.

CHAIRMAN JACKSON: Well lets face the facts that the condition is there, it's not going to improve, you may be able to limit future growth on the use of that highway, but right now you're concerned and we're concerned about meeting what is already there and what is likely to get worse regardless of what we do. We'll do our damnest to hack away at it.

Anything else to come before this meeting? We are adjourned.

TRAFFIC COUNTS

CENTRAL OREGON

M.P.	Location	1973	1974	1975	Change (75-76)	1976
U.S. 97 - The Dalles-California Highway (Hwy 4)						
112.83	Jefferson-Deschutes County Line	3,700	3,600	3,700	9%	4,050
118.53	So. O'Neil Hwy	5,200	5,200	5,400	17%	6,300
120.28	So. Kingwood Avenue	7,200	7,300	7,600	22%	9,300
120.46	No. City Limits Redmond	10,000	10,150	10,500	7%	11,200
121.30	Ochoco Hwy (Ore 126)	15,000	15,200	15,200	4%	15,800
122.31	So. City Limits Redmond	6,600	6,700	7,000	14%	8,000
130.19	So. Tumalo-Deschutes Hwy	5,700	5,800	6,100	15%	7,000
134.84	No. McKenzie - Bend (Hwy 20)	7,200	7,300	7,600	5%	8,000
135.44	So. McKenzie - Bend (Hwy 20)	10,500	10,600	11,100	19%	13,200
136.33	N. of E. 1st - Bend	12,900	13,100	13,700	20%	16,500
136.47	N. City Limits - Bend	9,800	9,900	10,400	32%	13,700
137.13	S. Revere Avenue - Bend	13,500	13,700	17,200	7%	18,400
137.64	N. (US 20) - Bend	16,200	16,400	17,000	16%	19,800
137.96	S. Franklin Avenue - Century Dr.	18,500	18,700	20,000	10%	21,900
138.99	S. City Limits - Bend	12,000	15,000	16,000	15%	18,400
139.96	N. Hayes Avenue - Bend	10,200	10,300	11,100	59%	17,700
142.33	Lava Butte P. Counter	4,950	5,050	5,400	13%	6,100
U.S. 20 - Central Oregon Highway (Hwy 7)						
0.52	E. of Hwy 97		11,300	11,700	3%	12,100
1.19	E. City Limits Bend		4,000	4,200	36%	5,700
2.54	W. Arnold Market Road		3,150	3,350	49%	5,000
4.74	W. Powell Butte Hwy		2,350	2,550	14%	2,900

JJ:ve
9/21/77

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

September 15, 1977

FROM: Frank E. Terpin
Location Engineer

SUBJECT: Redmond-Bend Section
The Dalles-California Highway
Deschutes County

TO: E. S. Hunter
Technical Services Engineer

The following report is intended to serve as information for the Transportation Commission at its September 22 meeting. It is understood that the City of Bend, the Bend Chamber of Commerce, Deschutes County and the City of Redmond wish to discuss the four-laning of the South City Limits (Bend)-Murphy Road Section and improvement of the Redmond-Bend Section of the The Dalles-California Highway.

VAB:mc

THE DALLES-CALIFORNIA HIGHWAY

DESCHUTES COUNTY

September 1977

Redmond-McKenzie/Bend Interchange Section

Existing Roadway

9.0 miles, 2 12-foot lanes and 4-foot paved shoulders

3.5 miles, intermittent 4 lanes, constructed 1973

Traffic and Accident Rate

1976 ADT - 6100-8000 vehicles daily

1972-1976 Accident rate, average 1.33

Statewide rural average 1.84

Improvement Costs

It was estimated on a reconnaissance basis that it will cost $10 million to four-lane the remaining 2-lane section of highway. This project is not on any current program for improvement. Portions of this section were identified for improvement with future bond sales, but the bond program has been cancelled due to the Division's financial crisis.

McKenzie/Bend Interchange-Revere Street Section

Existing Roadway

0.75 mile, 2 12-foot lanes and 4-foot paved shoulders

0.50 mile, 2 12-foot lanes and 10-foot paved shoulders

1.00 mile, 4 lanes intermittent sections

Traffic and Accident Rate

1976 ADT - 13,200-16,500 vehicles daily

1972-1976 Accident rate, average 3.66

Statewide suburban avg. 3.83

Improvement Costs

Cost on a reconnaissance basis to complete 4 lanes is $5.6 million.

This project is not on any program for improvement.

Interim Project:

In an effort to provide for additional capacity and safety a Title II High Hazard Safety Project, estimated to cost $200,000, has been investigated to provide for a continuous left-turn lane between the McKenzie/Bend Interchange and First Street. It is hoped that this limited funded improvement could be started in the first quarter of 1978 if all qualifications are met. Projects of this type are funded with a limited annual Federal-aid apportionment with final selection, from a statewide list, based primarily on a high benefit to cost ratio and accident history. One mile in length.

Revere Street-Railroad Undercrossing Section

Existing Roadway

1.05 mile, 4-lane, 64-foot street section

Constructed in 1964

Traffic and Accident Rate

1976 ADT - 18,400-21,900 vehicles daily

1972-1976 Accident rate, average 5.22

Statewide urban average 6.27

Improvements

The City of Bend has requested a study to be made for utilizing other streets for "local" traffic as an interim solution for relieving congestion on 3rd Street. It is anticipated that this study, by the Operations Planning Unit, will be submitted to the City by the end of September, 1977.

Railroad Undercrossing Section

Existing Roadway

0.23 mile, 2-lane, 28-foot street section

Constructed in 1940

Traffic and Accident Rate

1976 ADT - 19,700 vehicles daily

1972-1976 Accident rate average 6.16

Statewide urban average 6.27

These accident statistics are from Franklin Avenue to the South City Limits of Bend, which includes the railroad undercrossing section.

Improvement Costs

Preliminary estimate of the construction cost for an overcrossing of the Burlington Northern Railroad is $4.9 million. Past history of drainage problems associated with the present underpass and economic considerations are the basis for considering an overpass.

This project is included in the 1976 Six-Year Highway Improvement Program for FY 1982 and later. However, it has not been approved for construction.

This project is tentatively assigned for FY 1984 funding in the update of the annual Six-Year Highway Improvement Program now under consideration. Final position is subject to both ratification by the local citizens in the fall review of this tentative program and favorable action at the polls on the 2 cent gas tax measure in May 1978.

Railroad Underpass-Cleveland Avenue (S.C.L. Bend) Section

Existing Roadway

0.6 mile, 4-lane, 64-foot street section

Constructed in 1959

Traffic and Accident Rates

1976 ADT - 18,400-19,700 vehicles daily

1972-1976 Accident rate average 6.16

Statewide urban average 6.27

The above statistics are from Franklin Avenue to the south city limits of Bend, which includes the above 0.6-mile section.

Improvements

The City of Bend has held a public hearing on this section of the The Dalles-California Highway for restriping to five lanes, which will eliminate the parking on each side of the roadway and introduce a continuous left-turn lane. It is anticipated that this work will be done at the same time as the improvement of the Bend South City Limits-Murphy Road project.

Bend South City Limits-Murphy Road Section

Existing Roadway

2.07 miles, 2 12-foot lanes with variable shoulder width from 4 to 8 feet

Traffic and Accident Rate

1976 ADT - 17,700-9,900 vehicles daily

1972-1976 Accident rate average 1.10

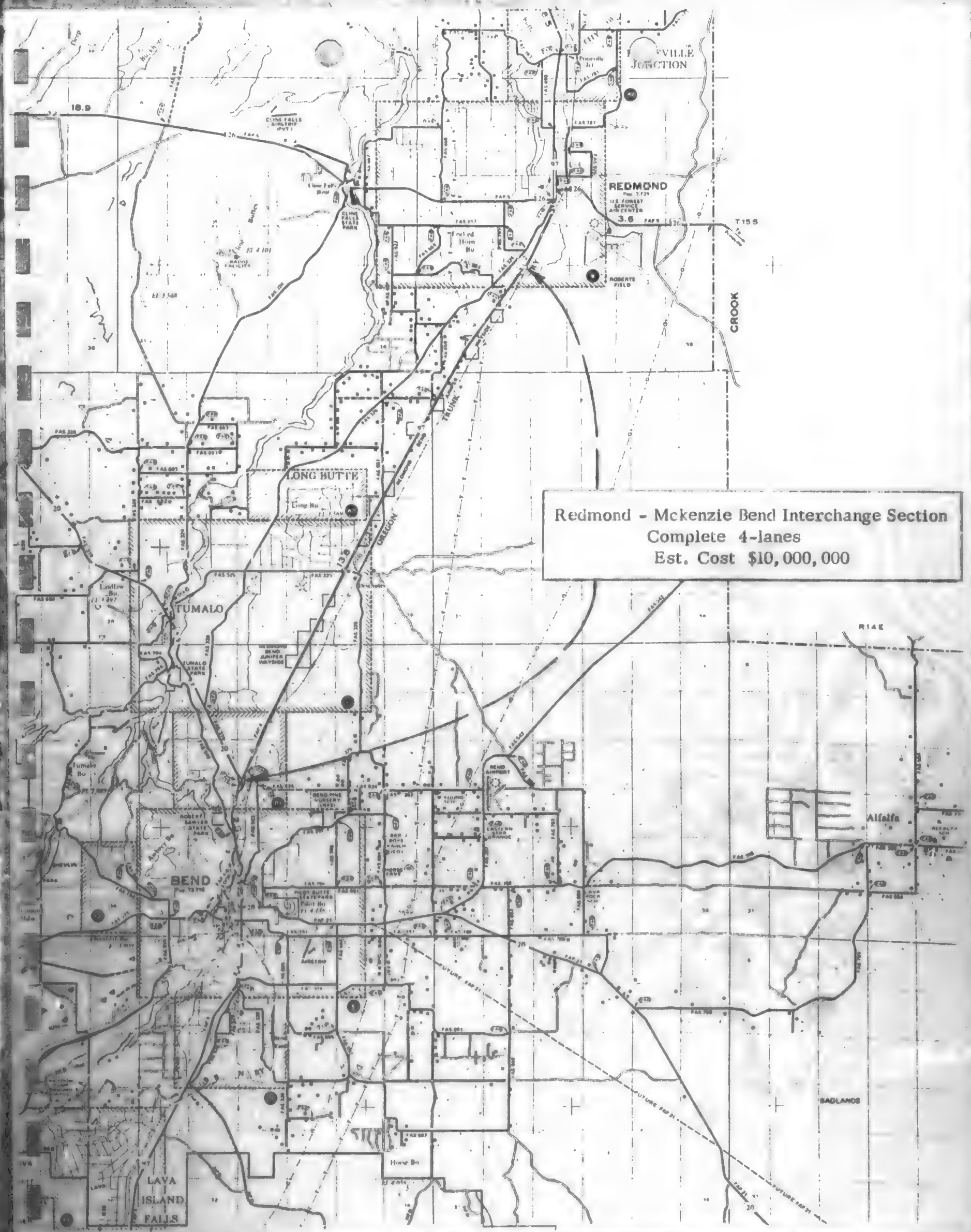
Statewide rural average 1.84

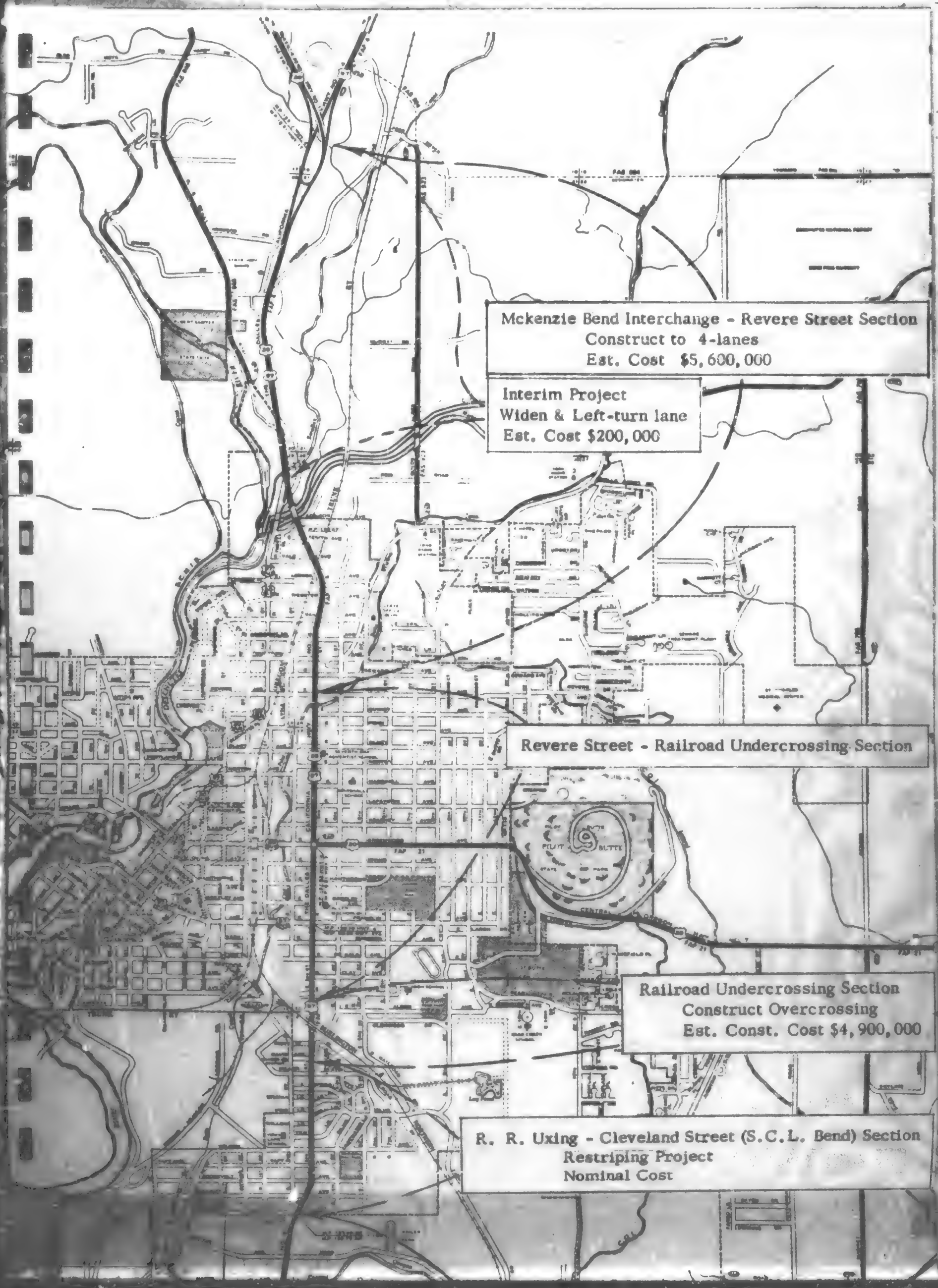
Improvements

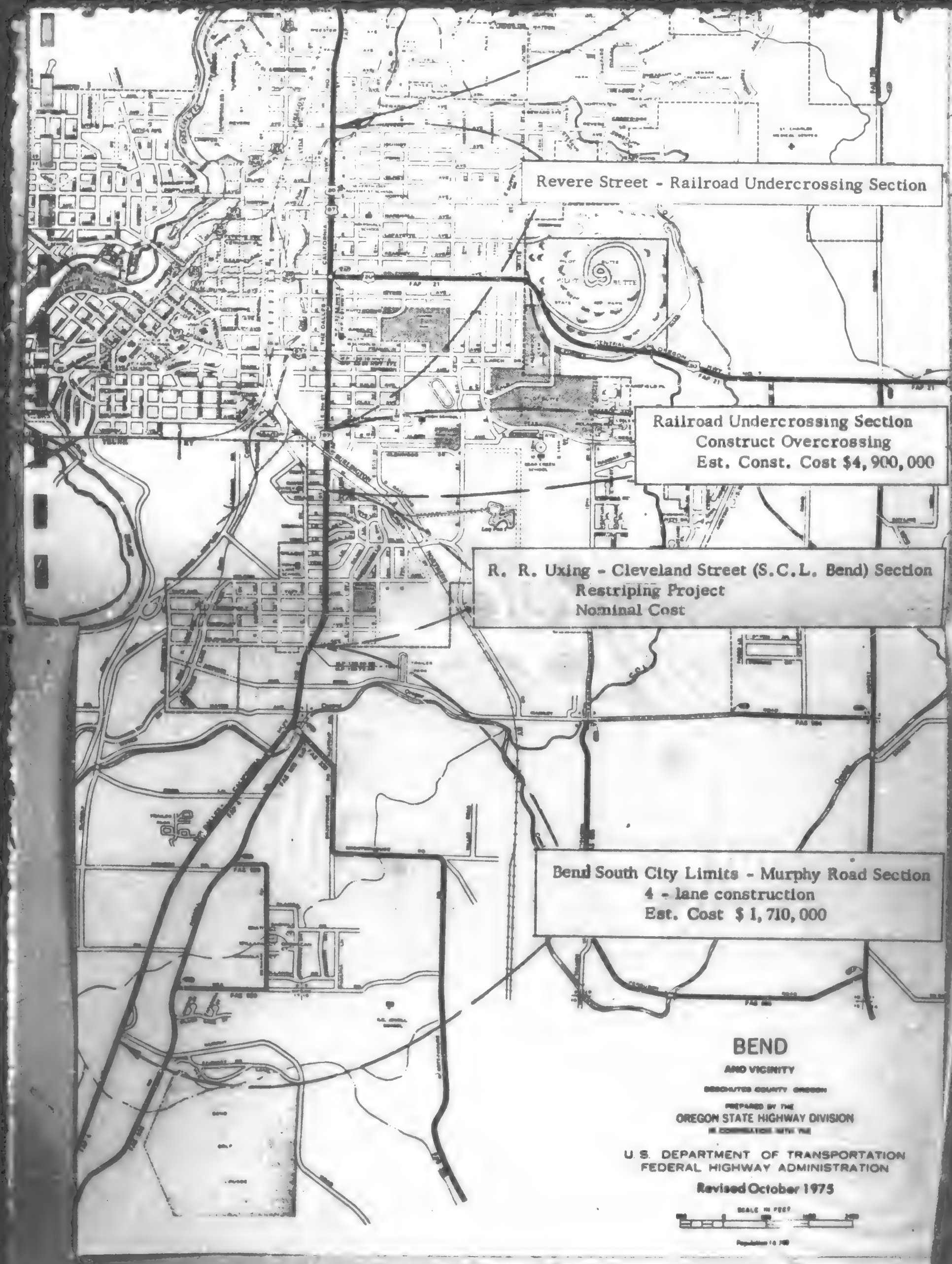
This proposed project anticipates widening the existing roadway to provide 4 12-foot lanes, 4-foot shoulders and a continuous 14-foot left-turn median. Estimated total cost is $1,710,000. The corridor-design hearing is tentatively scheduled for October 20, 1977.

The current (1976) Six-Year Highway Improvement Program lists this project approved for construction in FY 1978 and later revised to FY 1979.

The public hearing schedule, coupled with right of way acquisition and relocation, precludes advancing the project to contract stage before FY 1979. It is anticipated that with a favorable reaction by the citizens at the public hearing and favorable right of way negotiations, the project could possibly be contracted with FY 1979 funds; i.e., May-June 1979. This is a very optimistic projection and if any controversial issues develop, approval for construction could be much later.


REDMOND
JUNCTION
CROOK
LONG BUTTE
TUMALO
BEND
LAVA ISLAND FALLS
Alfalfa
BADLANDS
R14E
T15S
OREGON
TRUNK
FUTURE FAP 21
Redmond - Mckenzie Bend Interchange Section
Complete 4-lanes
Est. Cost $10,000,000


Mckenzie Bend Interchange - Revere Street Section
Construct to 4-lanes
Est. Cost $5,600,000
Interim Project
Widen & Left-turn lane
Est. Cost $200,000
Revere Street - Railroad Undercrossing Section
Railroad Undercrossing Section
Construct Overcrossing
Est. Const. Cost $4,900,000
R. R. Uxing - Cleveland Street (S.C.L. Bend) Section
Restriping Project
Nominal Cost


Revere Street - Railroad Undercrossing Section
Railroad Undercrossing Section
Construct Overcrossing
Est. Const. Cost $4,900,000
R. R. Uxing - Cleveland Street (S.C.L. Bend) Section
Restriping Project
Nominal Cost
Bend South City Limits - Murphy Road Section
4 - lane construction
Est. Cost $ 1,710,000
BEND
AND VICINITY
DESCHUTES COUNTY OREGON
PREPARED BY THE
OREGON STATE HIGHWAY DIVISION
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Revised October 1975
SCALE IN FEET

September 2, 1977

Mr. Art Johnson
City Administrater
City of Bend
City Hall
Bend, OR 97701

Dear Mr. Johnson:

Carl Williams, Region Engineer in Bend, has informed me that the City of Bend, the Bend Chamber of Commerce, Deschutes County and the City of Redmond wish to appear before the Transportation Commission at its September meeting.

It is our understanding that you want to discuss the four-laning of the South City Limits-Golf Club Road Section and the improvement of the Bend-Redmond Highway.

The next meeting is set for Thursday, September 22, 1977, in Room 122 (Conference Room) of the Transportation Building here in Salem. A delegation from Jacksonville is scheduled to appear at 11 a.m., and your group will be called upon just as soon as they have finished their presentation.

Very truly yours,

C. W. Read
COMMISSION SERVICES

CWR:fkm

cc Transportation Commission
Robert Burco
F. E. Klaboe
George Bell
H. S. Coulter
R. S. Hunter
Carl Williams

To City Center
ROOSEVELT AVE.
N. END OF PROJECT
CLEVELAND AVE.
HILL ST.
BIKE PATH
city limits
REED MARKET RD.
Canal
BIKE PATH
BROSTERHOUSE ROAD
PARRELL ROAD
BENHAM ROAD
AVE.
Oregon
HAYES
CHUKER LN.
CHAMBERLIN ST.
city limits
Central
LANE
ROAD
POWERS
REED
HAYES ROAD
BLAKELY ROAD
BLAKELY
BEND

Sept

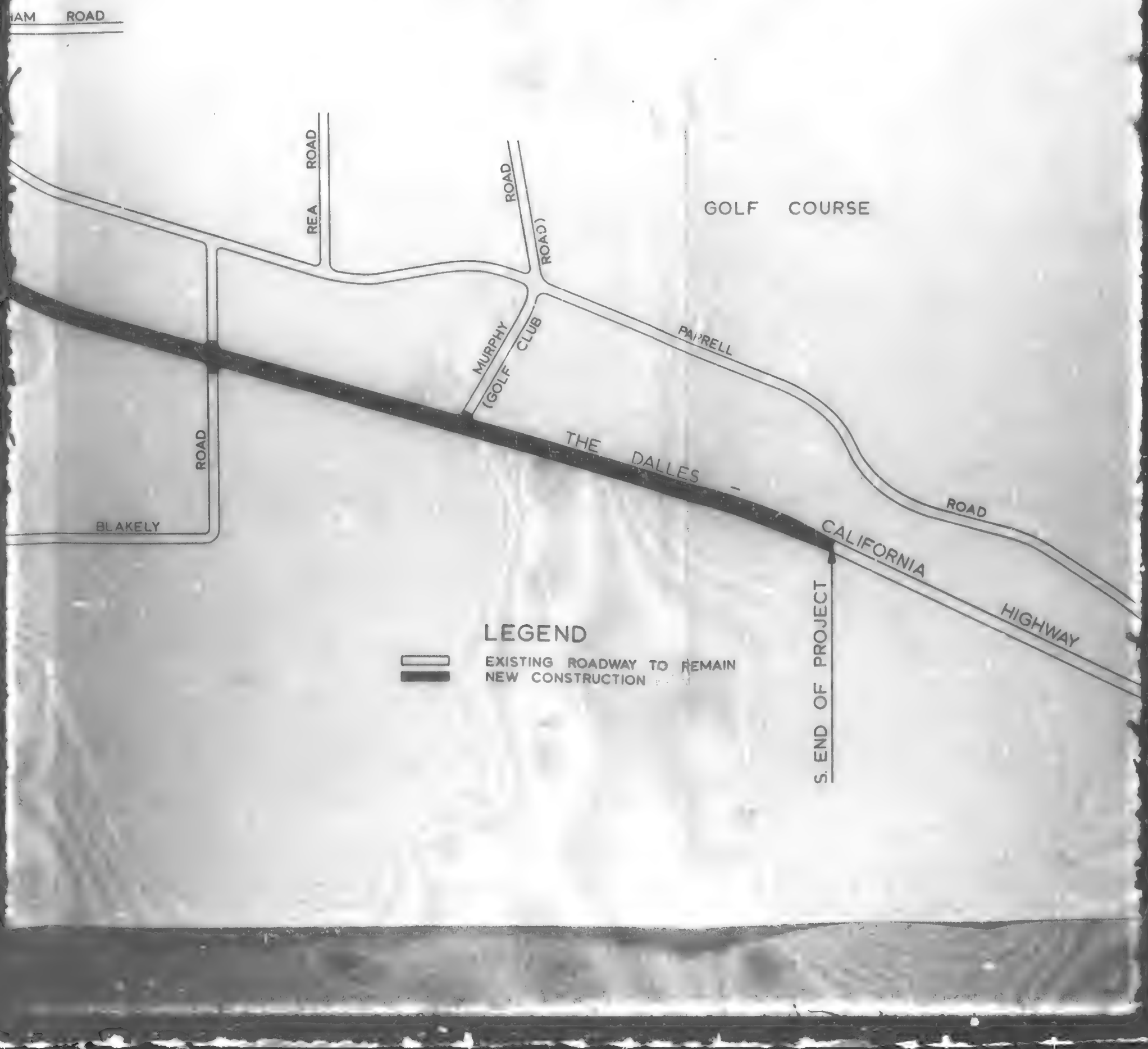
CORRIDOR & DESIGN HEARING MAP

SOUTH CITY LIMITS ~ GOLF CLUB RD (BEND

THE DALLES ~ CALIFORNIA HIGHWAY

DESCHUTES COUNTY

MARCH 1977



seat 2

CORRIDOR & DESIGN HEARING MAP

...TH CITY LIMITS – GOLF CLUB RD (BEND)

THE DALLES – CALIFORNIA HIGHWAY

DESCHUTES COUNTY

MARCH 1977

- 7 2950

4

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

September 13, 1977

FROM: Frank E. Terpin
Location Engineer FET

SUBJECT: Bend-Golf Course Road Section
The Dalles-California Highway
Deschutes County

TO: F I L E

The attached bar chart has been prepared for the subject project to determine the earliest possible date for bid opening.

A delegation from the Bend area is meeting with the Transportation Commission on September 29. It is Region Engineer Williams' opinion that they will wish to discuss the timetable for construction of the project.

A report is being prepared for use by the Commission and will reflect the times as shown on the chart.

Attachment

FET:mc

cc J. H. Versteeg (w/att)
J. B. Boyd "
Gary A. Potter "
Carl Williams "

1 Versteeg
3 Christensen
George
2 Olsen
Terpin
Sullivan
Scott
Savage

RECEIVED
SEP 13 1977
ENGINEERING SECTION

Trout

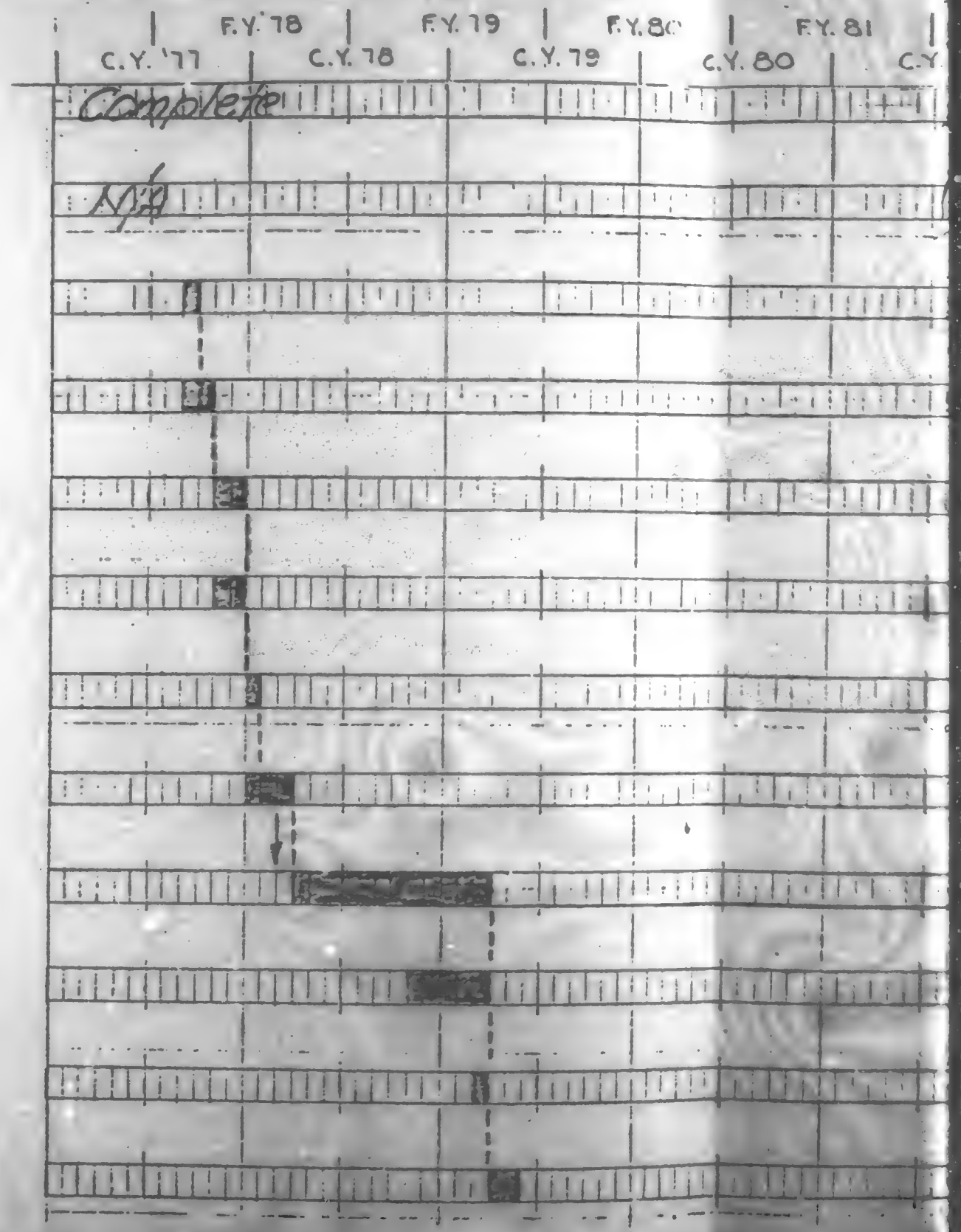
Do Not File ☐
Return To
Bring Up ___/___/___
Action

Project: Bend-Golf Course Rd. Category III Major Work G & P

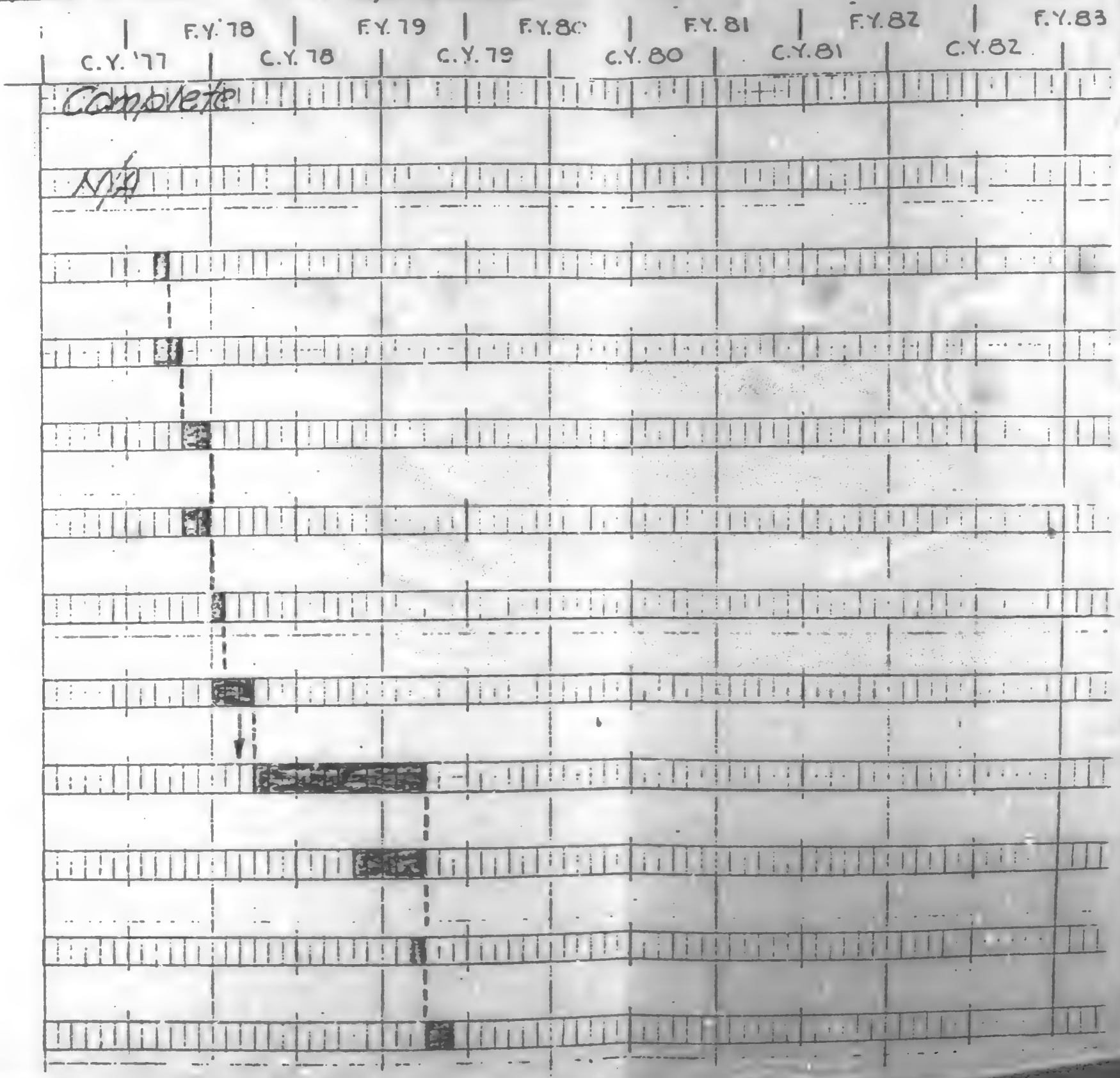
Highway: The Dalles-Cal Funds F.A. Cost $1,700,000

County: Deschutes

1. Complete field location survey
2. Draft environmental impact statement
3. Prepare negative declaration
4. Prepare exhibits, advertise and hold combination corridor/design hearing.
5. Analyze hearing transcript and prepare study report
6. Complete final environmental impact statement
7. Obtain approval for project from Transportation Commission and Federal Highway Administration.
8. Complete preliminary plans and right of way descriptions
9. Negotiate and purchase right of way.
10. Complete final plans.
11. Prepare specifications.
12. Advertise and award contract.



d-Golf Course Rd. Category III Major Work G&P OYF-F.Y. 79 "E
Dalles-Cal Funds F.A. Cost $1,700,000
chutes



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and Federal Highway Administration.

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urchase right of way.

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award contract.

8950

Form FHWA-121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem, Oregon 97308

DATE: September 1, 1977

In reply refer to: HEC.3-OR

SUBJECT: Oregon Project F-4-2(-)
Bend South City Limits-Murphy
Draft Negative Declaration
Deschutes County

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer
Salem, Oregon

NOTED
E. S. HUNTER

Attached is a copy of the subject declaration concurred in by this office September 1, 1977. The original has been forwarded directly to Mr. Gary Potter in the Environmental Section.

William A. Kappus
for G. L. Green

Attachment

cc: C. Laux

RECEIVED
STATE HWY ENGR
SEP 2'77
REFER TO
Hunter
FOR
Info | Invest | R/D | D/R | Sign | Act | File

RECEIVED
TECHNICAL SERVICES
SEP 2'77
REFER TO
FOR:
Info | Invest | R/D | D/R | Sign | Act | File

8150

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Bend, Oregon 97701

July 9, 1976

FILE: MAI 12-11

FROM: John E. Holcomb
Regional Traffic/Utility Engineer

SUBJECT: SCL-Murphy Road (Bend) Sec.
The Dalles/California Hwy.
Deschutes County

TO: Memo to the Files

Marion G. Krebs, 585 Taylor, Ashland, OR 97520, was in the office July 8 and 9 to discuss construction of a shopping center complex in the several lots presently existing in the northwest quadrant of the intersection of subject section at Arthur Avenue.

Mr. Krebs is interested in developing a site containing a 20,000 square foot supermarket, a large cut-rate drug store, a variety store, several rental units, and possibly a bank at some future date. His anticipated schedule is to begin construction in late 1976 or early 1977.

Because he anticipates his biggest drawing area will be residences located east and south of the highway, he is very interested in having a traffic signal installed at this intersection.

Carl Williams, Dave Fenton, and I attended the July 9 meeting. We advised Mr. Krebs that all cost for construction of the signalized intersection will have to be borne by him. A windshield estimate of cost is $80,000. This will include a left-turn refuge at both the north and south approach of the highway, and a five-phase actuated signal. We also told Mr. Krebs that this is preliminary and contingent upon Transportation Commission approval. If and when the plan is approved, he will be required to make an advance deposit for the total estimated cost.

Mr. Krebs was satisfied with the scheme, and will now turn the project over to his architects.

With respect to the State's purchase of additional right of way for the anticipated construction of the section, Mr. Krebs was advised of the following:

1. The State's tentative schedule is to begin construction in 1978.

2. No right-of-way can be purchased for highway construction until after a public hearing has been held. Our present anticipated schedule is October, 1976.

3. After the hearing and if the State finds it in the public interest, an appraisal can be made of the taking from Mr. Krebs. That sum could be credited to the cost of signalizing the intersection.

RECEIVED
JUL 10 1976
Office of
Assistant State Highway Engineer

ROUTED
R. L. SCHAFFER

Upon completion of the design for the shopping center, Mr. Krebs will return and an agreement for construction of the intersection will be drafted.

JEH:mr

cc: R. L. Schroeder
L. E. George
R. L. Lammert
George Martin
Harold Brainerd

GENERAL FILES

8950

U. S. DEPARTMENT OF TRANSPORTATION — FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
U-108(11)

STATE PROJECT NO.
SCL Bend-Golf Course Road

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
RF-74 & U-210

COUNTY NAME
Deschutes

PROGRAM STAGE (Check)
☐ 1. ☐ 2.

TO:

Mr. F. B. Klaboe
Administrator & State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
DEC 24 '75
REFER TO
FOR

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	December 22, 1975	Primary Route 4	Primary Route 4

GENERAL LOCATION:
US 97 South City Limits of Bend - south 1.99 miles

GENERAL DESCRIPTION OF WORK:
Preliminary Engineering

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☒ OTHER (Specify) Preliminary Engineering through location/design at an estimated cost of $15,000 - Federal funds $11,650.

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

My program approval memorandum of December 22, 1975 approved this project for inclusion in the Federal-aid program.

As requested in Mr. Rulien's December 12, 1975 letter you are authorized to proceed with the work as shown above.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
12-22-75	G. L. Green	Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

TRANSMITTAL AND REQUEST FOR INITIAL PROGRAM APPROVAL OF PROJECTS

(PPM 21-1)

STATE HIGHWAY DEPARTMENT: Oregon

DATE: 12-22-75

BY (Signature): L. W. Rulien's December 12, 1975 letter

TITLE: Project Management Engineer

CLASS OF FEDERAL FUNDS: ☐ FAI ☐ FAP ☐ FAU ☐ FAS ☐ OTHERS

ITEM NOS. 74 and 210 THRU

ITEM NOS. _____ THRU _____

ITEM NO.	PROJECT NOS.	LENGTH (Miles)	TOTAL ESTIMATED COST	FEDERAL FUNDS	OTHER IDENTIFICATION AND/OR REMARKS (State) Location	Work
74	RF-U-108(11)	1.84	18,400	14,300	SCL Bend-Golf Club Road Deschutes County State of Oregon	Preliminary Engineering including Preliminary Engineering for utility forces
210	U-RF-108(11)	0.15	1,600	1,200	"	"

REMARKS (Division)

RECEIVED
STATE HIGHWAY ENGR.
DEC 24 '75
REFER TO:

FHWA

RECOMMENDED: DATE	SIGNATURE AND TITLE	APPROVED: DATE	SIGNATURE AND TITLE
		12-22-75	G. L. Green, Division Administrator

* Program approval shall not constitute any commitment of Federal funds nor shall it be construed as creating in any manner, any obligation on the part of the Federal Government to provide Federal funds for the undertaking.

FORM PR-40
(Rev. 8-71)

GPO 915-89

- 1955

PRO 6-2

December 12, 1975

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: L. M. Rullen
Project Management Engineer

SUBJECT: Program Data Submission
Project No. U-RF-108(10)

We are submitting program data for one jointly financed Urban-Rural Primary Project No. U-RF-108(10), Item No. 210 (Urban), Item No. 74 (Rural Primary), "S. City Limits Bend-Golf Club Road Section", which we desire to have included in the Federal Aid Urban and Rural Primary Highway Programs.

We request, concurrent with program approvals, authorization to proceed with all phases of preliminary engineering through location/design approval at an estimated total cost and Federal funds as follows:

	Total Cost	Federal Funds
Urban Portion	$ 1,200	$ 900
Rural Portion	13,800	10,750

One copy each of the State Clearinghouse and District 10 Clearinghouse A-95 review letters of approval were previously submitted.

CL:md

Encl.

cc: C. M. Williams (Region 4)

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO B. O.

FORM PR-1 (REV. 4-61)

FEDERAL-AID PROGRAM DATA

December 12, 1975

CARD 2	REPORT NUMBER (1-9) (10)	1	PROJECT LOCATION (45 typewriter spaces) (21)	U.S. 97, SCL Bend, S. 1.99 mi. (68)	ADT	PRESENT	10,000	FUTURE (69) (70)	18,000	YEAR (71) (72)	95	REGION	10	STATE NAME	Oregon
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) (28)	Preliminary Engineering (62)	NATL. FOREST (63) (65)	FR ROUTE NO. (66) (68)	SUPV. AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72) (73)		PL. AUTH YR (74) (75)		PROJECT NUMBER PREFIX LETTER(S) (14)	U-RF- (28)	NUMBER (7)	108
CARD 4	CLASS OF FEDERAL FUNDS	Urban Extension						COUNTY NAME	Deschutes						CO 01
	NAME OF URBAN AREA (17-31)	Bend						ROUTE NO.	P	FEDERAL-AID	4 (32)	STATE	4 (36) (37)	U.S.	97

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE (43-46)	STEP (53)	TERMINI (Full description)	MILES (54) (58)	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST (59-66)	FEDERAL FUNDS (67-70)	STATE FUNDS	OTHER FUNDS
5	(1-4 5)	(10)	41	42	PE		US 97, South city limits of Bend, south 1.99 mi.	(1.99) 0.15	(20,000) 1,600	1,200	400	
5					ROW							
5					CONST (CODE)		"S. City Limits Bend-Golf Club Road Sec."					
							PROJECT TOTALS	0.15	1,600	1,200	400	

CARD 1	CODE 1	PREPARED BY	CL
1	14	PROGRAM APPROVAL DATES	(16) (22) (24) (33) REMARKS

FORM PR-1
(REV. 4-61)

FEDERAL-AID PROGRAM DATA

December 12, 1975

LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
SCL Bend, S. 1.99 mi.	ADT	10,000	18,000	95	10	Oregon	41	032	210

(35 typewriter spaces)	NATL. FOREST	FH ROUTE NO.	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER: PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only: POST MI.	DESIG.
ing								U-RF-	108	(10)		

n Extension	COUNTY NAME	CODE	PROGRAM STAGE
	Deschutes	017	1 OR X 2

ROUTE NO.	FEDERAL-AID	STATE	U.S.
P	4	4	97

E	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
		US 97, South city limits of Bend, south 1.99 mi.	(1.99) 0.15	(20,000) 1,600	1,200	400		Preliminary engineering-all phases incl. P.E. by Utility Forces.
								(Future construction on existing alignment to provide 4 travel lanes with continuous left turn lane and sidewalk /bikeway.)
T		"S. City Limits Bend-Golf Club Road Sec."						ROW - 120' normal; Access control-partial Parking restrictions-complete.
CL		PROJECT TOTALS	0.15	1,600	1,200	400		

DATES

REMARKS

-Over-

S. CITY LIMITS BEND-GOLF CLUB ROAD SECTION

PROJECT NO. U-RF-108(10)

Existing Facility:

Roadway -- Variable 24 to 26-foot A.C. surface with 4 to 8-foot shoulders.
Structure -- Central Oregon Canal Bridge #1134-A, reinforced concrete prestressed slab, length 57 feet, H.C. 70 feet, H-20 loading.

Adjacent Sections:

N. End -- 64-foot curbed roadway with 5-foot sidewalks each side.
S. End -- 24-foot A.C. surface with 8-foot shoulders.

Project Data: Work under this project consists of preliminary engineering all phases including preliminary engineering by utility forces as required for the future construction ncessary to widen the existing facility to provide for a four lane roadway with a left turn lane and sidewalk/bikeway.

System Action, Airports, Railroads, Water Developments, Historical and Recreational Areas: None involved.

FHPM 7-7-2 Requirements: Major action (non-significant) concurred in by FHWA on October 1, 1975.

IM 50-1-70 Requirements: State Clearinghouse and District 10 Clearinghouse A-95 review letters of approval dated November 18, 1975 and October 29, 1975 respectively.

FHPM 7-7-5 Requirements:

(a) Public Hearings -- Opportunity for a hearing will be offered and held if requested.
(b) Location/Design -- Approval will be requested under separate action.

Data for PR-3

Preliminar

NOTE:

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Clearinghouse
October 29, 1975

be offered and .

er separate action.

Data for PR-37:

	Urban Area	Rural Area
Preliminary Engineering -- Field Work	$1,200	$13,800
P.S. & E. Preparation	400	4,600
Total	$1,600	$18,400

NOTE:

(1) This project is in Congressional District No. 2.
(2) This project is jointly financed using Urban and Rural Primary Federal Funds. The overall length of the project is 1.99 miles and based on the physical location of the Urban boundary the part in the Urban Area (0.15 mi. or 8%) is financed with Urban Funds and the part outside the Urban Area (1.84 mi. or 92%) is financed with Primary Rural Funds.

Budget Bureau No. 41-R2067

U.S.

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

December 12, 1975

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

CARD																
CARD 2	REPORT NUMBER: 1	PROJECT LOCATION (45 typewriter spaces): US 97, SCL Bend, S. 1.99 mi.		ADT	PRESENT: 10,000	FUTURE: 18,000	YEAR: 95	REGION: 10	STATE NAME: Oregon							
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces): Preliminary Engineering		NATL. FOREST	FI ROUTE NO.	SUPV AGCY	DA CLASIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER: PREFIX LETTER(S): RF-4	NUMBER: 108					
CARD 4	CLASS OF FEDERAL FUNDS: Rural Primary									COUNTY NAME: Deschutes		CO: (P)				
	NAME OF URBAN AREA: Bend									ROUTE NO.: P	FEDERAL-AID: 4	STATE: 4	U.S.: 97			

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK: CLASS	WORK: TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS
1	(14-18)	(19)	41	42	43 46	53	US 97, South City limits Bend to South 1.99 mi.	(54) (58)	(59) (62)	(67) (70)		
5					PE			(1.99) 1.84	(20,000) 18,400	14,300	4,100	
5					ROW							
5					CONST (CODE)		"S. City Limits Bend-Golf Club Road Sec."					
							PROJECT TOTALS	1.84	18,400	14,300	4,100	

CARD 1	CODE 1	PREPARED BY: CL	REMARKS
1	14	PROGRAM APPROVAL DATES	

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

FORM PR-1 (REV. 4-61)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

December 12, 1975

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
97, SCL Bend, S. 1.99 mi.	ADT	10,000	18,000	95	10	Oregon	41	073	74

WORK (35 typewriter)	NATL. FOREST	FH ROUTE NO.	SUPV. AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST NO.	DESIG.
ering								RF-1	108	(10)		

	COUNTY NAME	CODE	PROGRAM STAGE
ral Primary	Deschutes	017	
nd	ROUTE NO. P	FEDERAL-AID 4	STATE 4	U.S. 97	1 OR X 2

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
		US 97, South City limits Bend to South 1.99 mi.	(1.99) 1.84	(20,000) 18,400	14,300	4,100		Preliminary engineering all phases incl. P.E. by Utility forces. (Future construction on existing alignment to provide 4 travel lanes with continuous left turn lane, sidewalk /bikeway. ROW - 120' normal; Access control-partial; Parking restrictions complete.
W								
NST		"S. City Limits Bend-Golf Club Road Sec."						
CL		PROJECT TOTALS	1.84	18,400	14,300	4,100		

AL DATES

REMARKS

-Over-

S. CITY LIMITS BEND-GOLF CLUB ROAD SECTION

PROJECT NO. RF-U-108(10)

Data for P

Existing Facility:

Roadway -- Variable 24 to 26 foot A.C. surface with 4 to 8 foot shoulders.
Structure -- Central Oregon Canal Bridge #1134-A, reinforced concrete prestressed slab, length 57 feet, H.C. 70 feet, H-20 loading.

Adjacent Sections:

N. End -- 64 foot curbed roadway with 5 foot sidewalks each side.
S. End -- 24 foot A.C. surface with 8 foot shoulders.

Note:

(1
(2

Project Data: Work under this project consists of preliminary engineering all phases including preliminary engineering by utility forces as required for the future construction necessary to widen the existing facility to provide for a four lane roadway with a left turn lane and sidewalk/bikeway.

System Action, Airports, Railroads, Water Developments, Historical and Recreational Areas: None involved.

FHPM 7-7-2 Requirements: Major action (non-significant) concurred in by FHWA on October 1, 1975.

IM 50-1-70 Requirements: State Clearinghouse and District 10 Clearinghouse A-95 review letters of approval dated November 18, 1975 and October 29, 1975. respectively.

FHPM 7-7-5 Requirements:

(a) Public Hearings -- Opportunity for a hearing will be offered and held if requested.
(b) Location/Design -- Approval will be requested under separate action.

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H-20 loading.

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O Clearinghouse A-95
ober 29, 1975.

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der separate action.

Data for PR-37:

	Urban Area	Rural Area
Preliminary Engineering		
Field Work	$1,200	$13,800
P.S. & E. Preparation	400	4,600
Total	$1,600	$18,400

Note:

(1) This project is in Congressional District No. 2.
(2) This project is jointly financed using Urban and Rural Primary Federal funds. The overall length of the project is 1.99 miles and based on the physical location of the Urban boundary the part in the Urban Area (0.15 mi. or 8%) is financed with Urban funds and the part outside the Urban area (1.84 mi. or 92%) is financed with Primary Rural funds

8950

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Lehmann, Coordinator Ph: 378-3732

STATE A-95 REVIEW CONCLUSIONS

APPLICANT: State Highway Division

PROJECT TITLE: S.C.L. Bend-Golf Club Road

DATE: November 18, 1975

The state has reviewed your project and reached the following conclusions:

11-20-75
cc: G. L. Green, EHWA
F. B. Klaboe
V. D. Wolfe
J. B. Boyd
R. E. Royer
J. H. Versteeg
Gary Potter
G. N. Hopkins, Co.-City
B. L. Gifford
D. E. Swan
Carl M. Williams
R. L. Lammert Aeronautics Div.

☒ No significant conflict with the plans, policies or programs of state government have been identified and your proposal is endorsed as presented.

☐ Relevant comments of state agencies are attached and should be considered in the final design of your proposal.

☐ Potential conflicts with the plans and programs of the state agency(s) have been satisfactorily resolved. No significant issues remain.

☐ Significant conflicts with the plans, policies or programs of state government have been identified and remain unresolved. The final proposal has been reviewed and the final comments and recommendations of the state are attached.

NOTICE TO FEDERAL AGENCY

The following is the officially assigned State Identifier Number:

7510 2 470

This number should be used on all correspondence and particularly on SF 240 as required by OMB A-98.

RECEIVED
STATE HWY ENGR
NOV 20 '75
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

A copy of this notification and attachments, if any, must accompany your application to the federal agency as required by OMB A-95. Comments of the appropriate local reviewing agencies must also be included.

BEN GIFFORD

PNRS #2

8950

OREGON STATE HIGHWAY DIVISION

ROBERT W. STRAUB
GOVERNOR

F. A. KLABOE
Administrator and
State Highway Engineer

October 16, 1975

TO: Executive Department
Federal Aid Coordination Unit

Central Oregon Intergovernmental Council
P. O. Box 575
Redmond, OR 97756

FROM: George N. Hopkins
Project Development Engineer

SUBJECT: Notice of Intent for Federal-Aid Funds
State Admin. Dist. No. 10
S.C.L. Bend-Golf Club Road Section
The Dalles-Calif. Hwy.
Deschutes County

In accordance with Executive Memorandum 02-270-20, attached are copies of the Notices of Intent for the subject project.

Early programing of this project for advance planning in anticipation of future construction is necessary; therefore, your prompt attention to this proposal will be appreciated.

Allowing time for your review, we estimate the date of filing for federal-aid funds on this project to be November 17, 1975.

Attachment

BLG:ek

cc: G. L. Green, FHWA
F. B. Klaboe
V. D. Wolfe
J. B. Boyd
R. E. Royer
J. H. Versteeg
Gary Potter
G. N. Hopkins, County-City
B. L. Gifford
D. E. Swan
Carl M. Williams
R. L. Lammert
Aeronautics Div.

RECEIVED
STATE HWY ENGR
OCT 20'75
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

Form 81-734-3122

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

NOTIFICATION OF INTENT TO APPLY FOR FEDERAL AID

For Internal Use Only	1-8] PNRS #	Page One

02	12] APPLICANT: State Highway Division [45	46] DIVISION: Dept. of Transportation [79				
03	12] APPLICANT ADDRESS STREET: State Highway Building [45	46] CITY: Salem [60		76] ZIP: 97310 [80		
04	12] CONTACT PERSON: L. W. Rulien [45	46] AREA CODE: 503 [48	49] PHONE: 378 [55	56] EXTENSION: 6563 [59		
01	12] PROJECT TITLE: S.C.L. Bend-Golf Club Road				District 10	[71
11	12] PROJECT LOCATION—CITY: The Dalles-Calif. Hwy. Bend	PROJECT LOCATION—COUNTY: Deschutes	PROJECT LOCATION [79 SEC: - T: 17S R: 12E			
05	SUMMARY PROJECT DESCRIPTION (ATTACH SUPPORTING DOCUMENTS AS NECESSARY—SEE INSTRUCTIONS ON BACK) This project, 1.99 miles in length, involves preliminary engineering, right-of-way					
06	12] acquisition, grading, paving, and incidental work to widen the existing 2-lane					[71
07	12] facility to a four lane roadway with left turn lane, curbs with no parking lane.					[71
08	12] Sidewalk/bikeway needs will be considered. (See attachment for details.)					[71
09	12]					[71
10	12]					[71

12	AMOUNT REQUESTED—FEDERAL FUNDS		NON-FEDERAL MATCHING FUNDS		OTHER	TOTAL
	12] (A) Grant [19	20] (B) Other [27	28] (C) State [35	36] (D) Local [43	44] (E) FUNDS [51	52] (F) FUNDS [60
	935,000	-	265,000	-	-	1,200,000

13	12] TYPE OF OTHER FEDERAL FUNDS (See 12B) [45	46] TYPE OF OTHER NON-FEDERAL FUNDS (See 12E) [79
14	12] FEDERAL PROGRAM TITLE: Title 23 U.S.C. Highways [71	
15	12] FEDERAL AGENCY NAME: U. S. Dept. of Trans. [45	46] FEDERAL SUB-AGENCY NAME: FHWA [79

17 **(A) TYPE OF APPLICANT:** (Check (X) the single most applicable box)

STATE	INTER-STATE	COUNTY	CITY	SCHOOL DISTRICT	SPECIAL DISTRICT	COMMUNITY ACTION	SPONSORED ORGANIZATION	OTHER
[X] 12	☐ 13	☐ 14	☐ 15	☐ 16	☐ 17	☐ 18	☐ 19	☐ 20

(B) TYPE OF ACTION: (Check (X) as many boxes as apply to this action)

NEW GRANT	CONT. GRANT	SUPPL'T GRANT	INCREASE DURATION	DECREASE DURATION	CANCELLATION	INCREASE DOLLARS	DECREASE DOLLARS
[X] 21	☐ 22	☐ 23	☐ 24	☐ 25	☐ 26	☐ 27	☐ 28

(C) HAS DISTRICT CLEARINGHOUSE BEEN NOTIFIED?		(D) REVIEW REQUIRED by A-95		(E) ENVIRONMENTAL IMPACT		(F) HOUSING RELOCATION REQUIRED	
Yes	No	Yes	No	Yes	No	Yes	No
[X] 29	☐ 30 Date: October 16, 1975	[X] 31	☐ 32	☐ 33	[X] 34	☐ 35	[X] 36

(G) ESTIMATED APPLICATION FILING DATE:	41] MONTH [42	43] DAY [44	45] YEAR [46
	November	17	1975

ADDITIONAL INFORMATION—ALL APPLICANTS

I. A. Is the project consistent with the city or county comprehensive plan, zoning and subdivision ordinance? No ☐ Yes ☒

I. B. Is the proposal consistent with statewide land use goals? No ☐ Yes ☒

I. C. Is the proposal consistent with state and regional plans? No ☐ Yes ☒

II. Will the project have an impact on a neighboring jurisdiction? No ☒ Yes ☐

If so, is the project consistent with the comprehensive plan for that jurisdiction? No ☐ Yes ☐

III. Explain deviations if any, from pertinent plans.

IV. Federal Catalog number (or Public Law no. and title) 20.205 Highway Planning and Construction

V. Has funding agency been notified? No ☐ Yes ☒ Date: 10-16-75

VI. If project includes state funds (12C), identify agency State Highway Division

STATE AGENCIES ONLY

VII. (a) IS PROGRAM BUDGETED ☐ NON-BUDGETED ☐

(b) STATE SHARE

GENERAL FUND CASH	OTHER FUND CASH	IN KIND
$_____	$_____	$_____

(c) FUNDING METHOD

	FEDERAL SHARE	STATE SHARE	TOTAL
First Year	%____ $_____	%____ $_____	%____ $_____
Second Year	%____ $_____	%____ $_____	%____ $_____
Third Year	%____ $_____	%____ $_____	%____ $_____

(d) WILL PROGRAM REQUIRE HIRING OF NEW STATE EMPLOYEES? No ☐ Yes ☐ Number _____

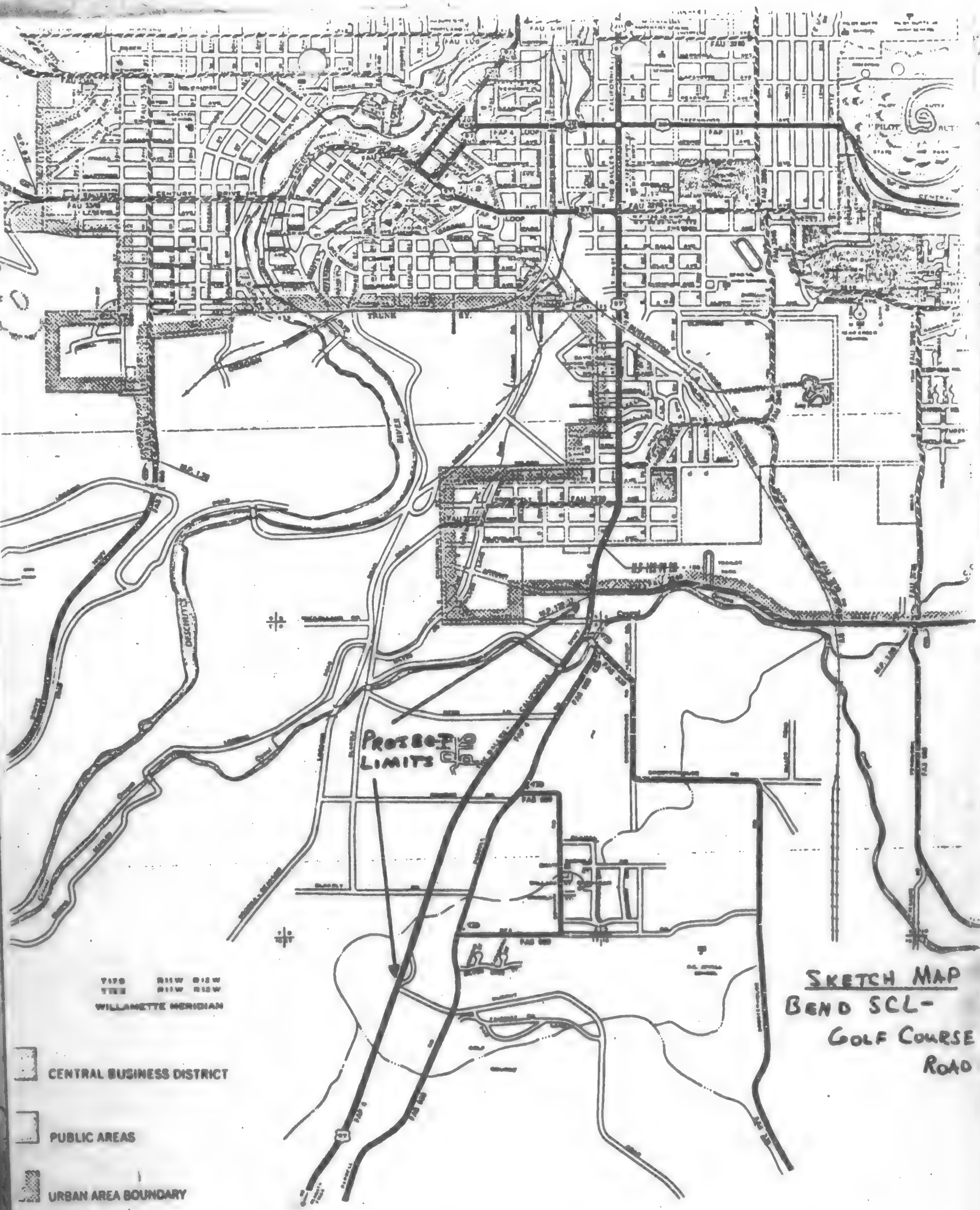
(e) Will accounting for this grant be administered by the Executive Dept. Accounting Division? Yes ☐ No ☐

PLEASE ATTACH ANY ADDITIONAL NARRATIVE OR REMARKS

17(E) This is a category 3 project of major nonsignificant environmental impact under Oregon's Action Plan.

This project is a part of the Division's Six-Year Construction Program adopted by the Commission May 30, 1975.

Right-of-Way will be required and a public hearing will be offered.



SKETCH MAP
BEND SCL-
GOLF COURSE
ROAD

Form FHWA 121 (Rev. 5-73)

875

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem OR 97308

DATE: October 1, 1975

In reply refer to: 1041EC.1

SUBJECT: U-RF-108(-)
SCL-Bend-Golf Club Road Section
The Dalles-California Highway
Deschutes County
Project Assessment

FROM: G. L. Green, Division Administrator

TO: Mr. F. B. Klaboe, Administrator & State Highway Engineer
Salem, Oregon

The subject project assessment submitted with Mr. Rulien's September 15 letter has been reviewed. We concur with your finding that the proposed project constitutes a Major action. (Non-significant)

It should be understood that our concurrence is only on the type of action. The proposed standards, the design, and other specific details contained in the assessment will be subject to future reviews at the appropriate stage during the project development.

NOTED
E. S. HUNTER

William H. Kappus
for G. L. Green

cc:
OSHD (Potter)
OSHD (Laux)
Dave Fenton, Reg Env.

RECEIVED
STATE HWY ENGR
OCT 2 '75
REFER TO
Rulien
FOR
Info | Inves | R/D | D/R | Sign | Act | File

cy Schroeder

.1979 Progress Inter- 8952
.change Off Ramp to Scholls
.Ferry Rd. (Gr, pave, sig.)

CqA 6975 5-16-79
C4A 6977 5-9-79
RR 1010 3-27-80

8752 ~~7.24~~ 334-1035

(ORIGINAL)

FORM APPROVED BY COMPTROLLER GENERAL, U.S. MAY 12, 1966

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

VOUCHER FOR WORK PERFORMED UNDER PROVISIONS OF THE FEDERAL AID AND FEDERAL HIGHWAY ACTS, AS AMENDED

STATE VOUCHER NO.

FHWA VOUCHER NO.

APPROPRIATION

FHWA SCHEDULE NO.

THE UNITED STATES, DR., TO *(Insert official or depositary named in project agreement)*

Treasurer of the State of Oregon

ADDRESS

Capitol Building
Salem, OR 97310

PAID BY

(For use of Paying Office)

STATE: Oregon

VOUCHER TYPE *(Check Appropriate Block)*

☐ CURRENT BILLING

☐ OTHER PROGRESS

☒ FINAL VOUCHER (*)

VOUCHER PERIOD — FROM: 5-2-79 — TO: 11-17-83

FEDERAL AID PROJECT NO.: M-IX-9234(4)

(*) Use Form FHWA-1447 for Final Voucher for a project constructed under certification acceptance or secondary road procedures (23 U.S.C. 117).

	TOTAL ACTUAL COST	TOTAL PARTICIPATING COST	PRO-RATA OF PARTICIPATING COST CLAIMED FROM U.S.	TOTAL AMOUNT CLAIMED FROM U.S.	LESS PREVIOUS PAYMENTS	NET AMOUNT CLAIMED
W36	197,385.16	195,681.00	.8815	172,492.80	172,492.80	-0-
823	347,445.71	347,383.65	85.00	295,276.10	295,276.10	-0-
	544,830.87	543,064.65	--	467,768.30	467,768.90	-0-

I certify that the costs shown in this voucher have been incurred in accordance with terms of project agreements; applicable State and Federal laws or regulations; and that no claim has previously been submitted for costs claimed.

STATE HIGHWAY AGENCY: Oregon

DATE: 2/9/84

SIGNATURE OF AUTHORIZED OFFICIAL: Controller

I certify that supporting records for costs claimed, and the referenced project (if applicable), have been subjected to required reviews, approvals and inspections by the Federal Highway Administration and that the amount approved is justly due.

AMOUNT SUBMITTED: $0.00

ADJUSTMENTS

AMOUNT APPROVED

SIGNATURE OF FHWA REPRESENTATIVE
(SIGN ORIGINAL ONLY)

DATE APPROVED

FORM PR-20
(Rev. 5-78)

PREVIOUS EDITIONS ARE OBSOLETE

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS (Payee must not use this column)
	Progress Interchange Off- Ramp Scholls Hwy. (FAU 9234) Washington County					
	Construction Type Code Y008 Channelization (Progress Interchange) Final Contract Payment Summary		Lump Sum		361,716.80	
	W 36 $130,240.35 823 $231,476.45					
SFO	#2 Provide temporary and premanent striping (State) (W36)		All Required		2,820.48	
SFO	#3 Install 3" conduit under railroad (State) (W36		All Required		192.63	
SFO	#4 Install addtional signing (State) (W36)		All Required		57.42	
SFO	#5 Construct asphalt concrete curb (State)		All Required		667.88	
SFO	#7 Relocate falshing lights and gates (SPTC) (W36)		All Required		44,214.82	
SFO	#8 REconstruction crossing (State) (W36)		All Required		11,339.65	
	Total Participating Type Code Y008				$421,009.68	
	Signals Type Code Y031 Final Contract Payment Summary (823)		Lump Sum		79,910.00	
SFO	#1 RElocate signal controller (State) (W36)		All Required		1,068.68	
	Total Participating Type Code Y031				80,978.68	
	Total Participating Construction Cost				$501,988.36	
	Construction Engineering					
SFO	#7 Work by Southern Pacific Transportation Co.		All Required		1,570.31	
	State		All REquired		61,202.53	
	Liquidated Damages		Lump Sum		(22,111.20)	
	Total Participating Construction Engineering				40,661.64	
	W36 4,735.94 823 35,925.70					
	Misc Project Cost					
	EEO Monitoring Expense (W36) 66.00 (823) 71.50		All Required		137.50	
	Audit Expense (W36)		All Required		277.15	
	Total Participating Misc Project Cost				414.65	
	Total Participating Project Cost				543,064.65	

AMOUNT CARRIED FORWARD .....

GPO 844 891

FORM PR-20B (REV. 9-66)
FORM APPROVED BY
COMPTROLLER GENERAL,
U.S. MAY 12, 1966
IN LIEU OF SF-1166

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

(PPM 30-6)

FEDERAL AID PROJECT

STATE

COUNTY

NUMBER

SECTION

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS (Payee must not use this column.)
	Non Participating Project Cost					
	Final Contract Payment Summary		Lump Sum		3,868.10	
	Final contract (Time Extension)		Lump Sum		1,000.00	
SFO	#2 Provide temporary and permanent striping (State)		All Required		143.03	
SFO	#5 Construct asphalt concrete curb (State)		All Required		2.20	
SFO	#6 Credit for excess Matle purchase on PA #7		All REquired		(3,868.10)	
SFO	#8 Reconstruct corssing (State)		All REquired		109.17	
SFO	#7 Work by Southern Pacific Transp. Co.		All Required		357.89	
	Construction Engineering (State)		All REquired		242.73	
	Liquidated Damages		Lump Sum		(88.80)	
	Total Non Participating Project Cost				1,766.22	
	Total Project Cost				544,830.87	

Prepared based on the Participating cost as shown on the Federal Billing as of 2-16-84

PREVIOUS EDITIONS ARE OBSOLETE

USCOMM-DC 27329-P66

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS *(Payee must not use this column)*

AMOUNT CARRIED FORWARD.....

801 OREGON STATE HIGHWAY DEPARTMENT 03/15/84

BILLING NUMBER 34 FHWA BILLING VOUCHER PAGE 44

PREFIX	GRP FL	FED AID PROJ APPR	AGREEMENT AMOUNT	TOTAL COSTS TO DATE	PARTIC. AMOUNT	% OF PARTIC.	FEDERAL SHARE	AMOUNT PREV. CLAIMED	ADJUSTMENT AMO CODE	AMOUNT OF THIS VOUCHER
330-1034	1	RRS -3495-001 APPR-138	150,758.45	167,055.99	167,507.65	90.00	150,756.89	150,756.89		
330-1044	1	RRP -3465-001 APPR-139	116,343.00	117,295.77	116,672.76	90.00	105,005.48	105,005.48		
330-1068	1#	RRP -000S-036 APPR-139	2,613.47	2,938.10	2,903.85	90.00	2,613.47	2,613.47		
	2#	RR00-000S-036 APPR-686	67,030.16	74,477.95	74,477.95	90.00	67,030.16	67,030.16		
330-1068		PREFIX TOTALS	69,643.63	77,416.05	77,381.80		69,643.63	69,643.63		
330-1073	1#	BHOS-3003-001 APPR-117	40,099.30	50,183.38	50,124.13	80.00	40,099.30	40,099.30		
330-1078	1	PMS -000S-108 APPR-140	16,760.00	8,888.19	8,888.19	100.00	8,888.19	8,888.19		
331-1005	1	RRP -000S-010 APPR-139	152,485.00	160,224.71	160,228.01	90.00	144,206.21	144,056.47		148.74
331-1012	1	M -4620-002 APPR-W32	206,463.00	254,845.82	253,730.82	81.83	207,627.93	206,463.00	1,164.93 B	
	8	M -4620-002 APPR-W32	45,100.00	55,321.61	55,323.11	81.83	45,270.90	45,100.00	170.90 B	
331-1012		PREFIX TOTALS	251,563.00	310,167.43	309,053.93		252,898.83	251,563.00	1,335.83	
331-1017	1L	BHOS-3101-001 APPR-114	90,540.00	621.14	621.14	80.00	496.91	345.12	124.23 I	276.02
331-1098	1#	BRM -4645-003 APPR-115	1657,494.56	2214,498.18	2209,992.75	75.00	1657,494.56	1657,494.56		
	2	M -4645-003 APPR-W32	185,305.16	216,100.51	216,048.92	85.77	185,305.16	185,305.16		
331-1098		PREFIX TOTALS	1842,799.72	2430,598.69	2426,041.67		1842,799.72	1842,799.72		
333-1028	1	M -4031-003 APPR-W32	328,248.00	369,274.76	369,042.05	88.15	325,310.57	325,310.57		
334-1035	1#	M -9234-004 APPR-W36	172,~~384.96~~ 492.80	197,385.23	195,681.00	88.15	172,492.80	172,~~384.96~~ 492.80	~~38.84~~ B	
	2#	XI -9234-004 APPR-823	295,276.10	347,445.64	347,383.65	85.00	295,276.10	295,276.10		
334-1035		PREFIX TOTALS	467,671.06	544,830.87	543,064.65		467,768.90	467,671.06	97.84	
334-1040	1#	XI -0000-013 APPR-823	364,817.30	436,778.44	429,196.82	85.00	364,817.30	364,817.30		
	8#	XI -0000-013 APPR-823	17,527.17	20,631.62	20,620.20	85.00	17,527.17	17,527.17		
334-1040		PREFIX TOTALS	382,344.47	457,410.06	449,817.02		382,344.47	382,344.47		
334-1044	1#	XI -9070-002 APPR-823	79,072.56	96,100.32	93,026.54	85.00	79,072.56	79,072.56		
	8#	XI -9070-002 APPR-823	2,388.73	2,811.00	2,810.27	85.00	2,388.73	2,388.73		
	9			10,840.64		85.00				
334-1044		PREFIX TOTALS	81,461.29	109,751.96	95,836.8?		81,461.29	81,461.29		

DESCRIPTION	PREFIX	FUNCTION	SUB	F.	GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE BEG	YPS END
		TOT	P1				33.04	369,042.05		
		TOT	Hi					232.71		
		** JOB TOTALS **				**	33.04 **	369,274.76 **		
PROG INTCHGOFFRMPSCHOLLSFRYRD CONT NO 8952 & FA PROJ NOS M 9234004 48 X1 9234004 52									STATE	
	334	1035	201	00	P	1	5,568.00	5,568.00	130,240.35	79 84
	334	1035	201	00	P	2	6,032.00	6,032.00	311,386.45	80 84
	334	1035	201	00	N	1	500.00CR	500.00CR	3,868.10	81 84
	334	1035	203	00	P	1	5,525.38CR	5,525.38CR	10,613.36CR	80 84
	334	1035	203	00	P	2	5,985.82CR	5,985.82CR	11,497.82CR	81 84
	334	1035	203	00	N	1	457.38	457.38	957.38	81 84
	334	1035	203	00	N	2	46.18CR	46.18CR	46.18CR	84 84
	334	1035	205	07	P	1		4,638.72		82 83
	334	1035	208	00	N	1			17.04CR	82 82
	334	1035	208	00	N	2			18.46CR	82 82
	334	1035	26C	05	P	1			667.88	81 81
	334	1035	260	05	N	1			2.20	81 81
	334	1035	270	01	P	1			1,068.68	79 80
	334	1035	270	02	P	1			2,820.48	80 81
	334	1035	270	02	N	1			143.03	80 80
	334	1035	270	03	P	1			192.63	80 81
	334	1035	270	04	P	1	28.17	28.17	57.42	81 84
	334	1035	270	07	P	1	28.17CR	630.28CR	45,785.13	81 84
	334	1035	270	08	P	1			11,339.65	81 82
	334	1035	270	08	N	1			109.17	81 81
	334	1035	290	06	N	1	1.10CR	1.10CR	3,868.10CR	81 84
	334	1035	296	00	N	9		3,991.14CR	467,470.47CR	79 84
	334	1035	298	00	N	9		3,991.14	467,230.47	79 84
	334	1035	299	00	N	9			240.00	82 82
	334	1035	900	00	P	1	97.44	287.78	13,196.94	79 84
	334	1035	900	00	P	2	105.57	311.23	46,800.17	79 84
	334	1035	900	00	N	1	.13	358.02	474.47	80 84
	334	1035	900	00	N	2			126.15	80 83
	334	1035	900	04	P	1	97.44CR	97.44CR		79 84
	334	1035	900	04	P	2	105.57CR	105.57CR		79 84
	334	1035	900	13	P	1	.06CR	.06CR		80 84
	334	1035	900	13	P	2	.07CR	.07CR		80 84
	334	1035	915	00	P	1		277.15	277.15	83 83
	334	1035	920	00	P	1			55.36	79 80
	334	1035	920	00	P	2			57.80	79 80
	334	1035	927	00	N	1			6.39	79 79
	334	1035	928	00	N	1			28.63	79 83
	334	1035	928	00	N	2	.01		.48	82 83
	334	1035	940	00	P	1	11.64		32.47	81 83
	334	1035	940	00	P	2	12.61		35.18	81 83
	334	1035	941	00	P	1			12.29	81 81
	334	1035	941	00	P	2			13.28	81 81
	334	1035	944	00	P	1			11.20	81 82

DESCRIPTION	PREFIX	FUNCTION	SUB F.	GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE YRS BEG	ACTIVE YRS END
	334 1035	944	00	P 2			126.94	81	82
	334 1035	945	00	P 1		7.52	274.51	81	82
	334 1035	945	00	P 2		8.15	297.39	81	83
	334 1035	946	00	P 1			36.02	81	82
	334 1035	946	00	P 2			39.04	81	82
	334 1035	948	00	P 1		3.91	14.09	82	83
	334 1035	948	00	P 2		4.23	8.07	82	83
	334 1035	948	00	P 4			42.13	80	30
	334 1035	950	00	P 1			45.65	80	80
	334 1035	950	00	P 2				80	84
	334 1035	960	00	N 1	44.91CR	44.91CR		80	84
	334 1035	960	00	N 2	48.65CR	48.65CR		80	84
	334 1035	985	00	P 1			66.00	80	81
	334 1035	985	00	P 2			71.50	80	81
		TOT	P1		42.56	4,569.23	195,681.00		
		TOT	P2		46.11	276.76	347,383.65		
		TOT	N1		88.50CR	269.39	1,704.23		
		TOT	N2		94.83CR	94.62CR	61.99		
		** JOB TOTALS **			94.66CR**	5,020.56 **	544,830.87 **		

NYBERG CREEK BR(TUALATIN) CONT NO 9083 = FA PROJ NOS XI 0000013 98 XI 0000013 02 STATE

	334 1040	201	00	P 1			379,204.84	80	82
	334 1040	201	00	P 8			19,619.50	80	82
	334 1040	201	00	N 1			7,008.25	82	82
	334 1040	206	00	N 1			335.26	82	82
	334 1040	206	00	N 8			6.86	82	82
	334 1040	220	02	P 1			244.30	80	81
	334 1040	270	01	P 1			613.19	80	81
	334 1040	296	00	N 9	41.07CR	410,044.47CR		80	84
	334 1040	297	00	N 9			27,700.00	80	63
	334 1040	298	00	N 9	41.07	382,344.47		80	84
	334 1040	900	00	P 1			47,836.33	80	82
	334 1040	900	00	P 8			974.33	80	82
	334 1040	900	00	N 1			237.41	80	81
	334 1040	900	00	N 8			4.56	80	81
	334 1040	920	00	P 1			144.01	80	80
	334 1040	920	00	P 8			2.94	80	80
	334 1040	940	00	P 1	47.53		190.60	81	83
	334 1040	940	00	P 8	.97		3.89	81	83
	334 1040	941	00	P 1			29.14	81	82
	334 1040	941	00	P 8			.60	81	82
	334 1040	944	00	P 1			66.29	82	82
	334 1040	944	00	P 8			1.35	82	82
	334 1040	945	00	P 1			855.52	81	82
	334 1040	945	00	P 8			17.46	81	82
	334 1040	948	00	P 1			12.60	81	82
	334 1040	948	00	P 8			.17	81	81
		TOT	P1		47.53	429,196.82			
		TOT	P8		.97	20,620.20			
		TOT	N1			7,581.62			
		TOT	N8			11.42			
		** JOB TOTALS **		**	48.50 **	457,410.06 **			

r11 OSHD (Coulter) **STATE COPY**

U.S. DEPARTMENT OF TRANSPORTATION
FED HIGHWAY ADMINISTRATION

5952

11-2-23

FINAL ACCEPTANCE REPORT

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	2	Washington	Oregon

DATE OF REPORT	REPORT MADE BY	PROJECT NO.
11/8/83	T. P. Lowe, Area Engineer	M-IX-9234(4)

COMPLETION DATE	ACCEPTANCE DATE BY CONTRACT AGENCY	TIME ELAPSED	CONTRACT TIME
9/12/80	1/26/82	185 %	445 cd

APPROVED EXTENSIONS	LOCATION
"A" 53 cd "B" 104 cd	See below

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

PROGRESS INTERCHANGE OFF-RAMP
BEAVERTON - TIGARD HIGHWAY
Grading, Paving and Signals

Net liqudated damages of $21,200 were charged to the contractor.

NOTED
W. E. SCHWARTZ
By
11/22

RECEIVED
STATE HWY ENGR
NOV 18 '83
REFER TO
Keasey
FOR

Info	Invss	R/D	D/R	Sign	Act	File

*NOTE: Not applicable for direct federal projects.

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE G.K. Hossner T. P. Lowe		SIGNATURE G.K. Hossner G. K. Hossner	
TITLE Area Engineer	DATE 11/17/83	TITLE Field Operations Engr	DATE 11/17/83

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

8952 2-10-82

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Roseburg Paving, Inc. No. 9197	NE Alameda Ave.-NE Garden Valley Blvd. (Roseburg) Douglas County	Jan. 13, 1982
Wildish Const. Co. No. 9216	Middle Fork Willamette River-Salmon Cr. (Oakridge) Lane County	Jan. 15, 1982
C. G. Gredvig, Inc. No. 9357	Germantown Rd. @ Cornelius Pass Rd. Washington County	Jan. 15, 1982
Dirt & Aggregate Intch. No. 9203	NE Columbia Blvd.-NE Weidler Multnomah County	Jan. 15, 1982
Morse Bros., Inc.. No. 9190	Sulphur Springs Road & Soap Creek Road Benton County	Jan. 15, 1982
J. C. Compton Co. No. 9200	Osweg Creek Slide Clatsop County	Jan. 18, 1982
The Kaspac Corp. dba Kaspac Industries No. 9298	Washington State Line-Lane County Line Clatsop, Tillamook & Lincoln Counties	Jan. 21, 1982
Ross Bros. Constr., Inc. No. 9214	Dean Creek Bridge Douglas County	Jan. 22, 1982
Cascade Const. Co., Inc. No. 8952	Progress Intchge. Off Ramp Washington County	Jan. 26, 1982
C.W. McCallen Construction No. 9295	Polallie Cr.-Cooper Spur Detour Hood River County	Jan. 28, 1982
Ross Bros. Const., Inc. No. 9292	N. Yamhill River (Oak Ridge Rd.) Bridge Yamhill County	Jan. 28, 1982
Mid-Columbia Paving Co. No. 9242	Mosier/The Dalles Hwy. @ W. 8th St. (The Dalles) Wasco County	Feb. 9, 1982

February 10, 1982

for C. T. Keasey
Asst. State Highway Engineer

8952

February 10, 1982

The Travelers Indemnity Co.
Surety Department
707 S.W. Washington Street
Portland, OR 97205

OCH 5
#8952

Gentlemen or Ladies:

On January 27, 1982, we wrote to you concerning release of final payment on Contract No. 8952 awarded to Cascade Construction Company, Inc. for work on the Progress Interchange Off Ramp Section of FAH 9234 (Scholls Highway) in Washington County.

The total contract amount is $424,294.90. No work was performed under force account.

Sincerely,

Robert W. Gormsen
CONSTRUCTION SERVICES

jz
cc: Cascade Construction Company, Inc.
P. O. Box 4257
Portland, OR 97208

Don Bonner & Company
200 Morgan Building
Portland, OR 97201

bc: C. T. Kenney
K. L. Hardt
Walt Hart

8952 1-51 143

NARRATIVE REPORT

Progress Interchange Off Ramp
FAU 9234 (Scholls) Washington County
Prefix: 334-1035 F.A. No. M-IX-9234(4)
Contract: 8952

This was a Federal-Aid Project awarded to Cascade Construction Co., Inc., on June 14, 1979, for the contract amount of $448,852.00. Work commenced on August 13, 1979 and was completed September 12, 1980. This project was set up with two specified completion dates; Phase A, 180 calendar days for all contract work except signing, illumination and traffic signals, and Phase B, which had 240 calendar days for all work to be completed under the contract. A total of 445 days were used in completing the project. A time extension request had been submitted and reviewed. There remained 111 calendar days of liquidated damages under Phase A, and 101 calendar days under Phase B for a total of 212 days on the project.

The project consisted of constructing a southbound off-ramp for Highway 217 connecting with Scholls Highway, reconstructing a frontage road, illumation and two sets of traffic signals. The project called for a temporary signal installation at the Cascade Blvd. - Frontage Road connection, this temporary installation was not installed.

The project was designed to be constructed in three stages, with construction work getting off to a very slow start.

There were several additions and changes made during the construction of the project. Some of the more significant were as follows:

1) Installed 18-inch concrete sewer pipe in lieu of the "V" bottom ditch between the Frontage Road and Scholls Ferry Road.

2) Installed 325 lin. ft. of type 2-A guardrail left of the Frontage Road at station 28 + 66 to station 31 + 91. This guardrail was connected to the concrete shoulder barrier at station 31 + 91. The run of guardrail was felt necessary for safety due to the curvature of the frontage road and the grade difference with the off ramp.

3) A phasing revision was requested, which resulted in making phase changes to the controller and requiring the installation of additional wire.

REFERRED TO
Beard Stoudenmeyer
Cole Mann
Eriksen Watson
Hagor Dorn Leu
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

1 Versteeg
Anderson
2 Christensen
Olson
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Terpin
Trout
Wakerlig

RECEIVED
MAY 1 1981
ROAD DESIGN SECTION

Do Not File
Return To
Bring Up /
Action

4) The three-inch galvanized rigid steel conduit for the one-inch electrical conduit crossing under the railroad was installed by state forces. It was decided to do this work by state forces after it was discovered that the contract when let did not require railroad insurance.

5) State forces are in the process of installing approximatly one hundred and fifty feet of asphalt concrete drainage curb and several permanent signs. State force orders were written for this, although at this time it is not one hundred percent complete.

The method of temporary protection of traffic seemed to be adequate with one exception. The exception being that once the connection was made from the Beaverton - Tigard highway to the off ramp it was a continual problem keeping motorists from trying to use the off ramp before the project had been completed. They would either try and go between the plastic safety markers or knock them out of the way. This problem occurred during the hours of no contractor activity.

The electrical sub-contractor requested that the state purchase materials which they acquired for the temporary signals and illumination which were never installed. We have requested them to submit the necessary documentation, but to this date have not received any response.

It is not known at this time if the contractor is going to persue the matter further in regards to the remaining liquidated damages or not. . . . .

The overall project was completed with an underrun of four percent.

NOTE: Since this narrative was written the necessary documentation for purchasing material on hand has been received. A State force order and a price aggreeement have been written and approved. A request for transfer of cost distribuation has also been submitted.

STATEMENT OF OVERRUNS AND UNDERRUNS

Project: Progress Interchange Off Ramp
Highway: Beaverton-Tigard
County: Washington

Contract No.: 8952
Prefix: 334-1035
F.A. No.: M-IX-9234(4)

ITEM	UNIT	ORIGINAL	SEMI FINAL	%(+ or -)
		SUMMARY		
Bid Items	$	453,115.30	437,486.40	- 3
Anticipated Items	$	2,900.00	0.00	+ 100
Contingencies	$	20,328.86	0.00	+ 100
Engineering	$	40,657.73	64,000.00	+ 57
Liquidated Damages	$	0.00	11,100.00	- 100
Total	$	517,001.89	490,386.40	- 5

All substantial changes were evaluated and none were found to have meaningfully affected the total project cost.

8952

STATE OF WASHINGTON — STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR WEEK ENDING

Progress Interchange Off Ramp

4-10-81

34-1035

Washington

NAME OF JOB: Progress Interchange Off Ramp

TYPE OF WORK: Grade, Pave, Signals

CONTRACTOR: Cascade Construction Co.

CONTRACT NUMBER: 8952

FED. AID PROJ. NUMBER: I-IM-90[illegible](4)

DATE OF CONTRACT: 6/14/79

DATE WORK STARTED: 8/13/79

ESTIMATED COMPLETION DATE:

AVERAGE FORCE ON PROJECT FOR THE WEEK

MEN: SUPERVISION:

SPECIFIED WORK DAYS:

WORK DAYS USED:

SPECIFIED CALENDAR DAYS: A:180 B:240

CALENDAR DAYS USED: A:445 B:445

SPECIFIED COMPLETION DATE:

PERCENT OF TIME ELAPSED: A:445 B:445

PROJECT AUTHORIZATION	$512,739.09	ENGINEERING AUTHORIZATION	$40,657.73
EXCLUSIVE OF ENGINEERING	$472,081.36	ENGINEERING COST TO DATE	$63,967.10
ESTIMATED COST OF COMPLETED PROJECT EXCLUSIVE OF ENGINEERING	$472,081.36	PERCENT OF AUTHORIZATION	157 %
ESTIMATED PERCENT OVERRUN/UNDERRUN	11 %		

PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100

PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 80

DATE PROJECT WAS COMPLETED: 9-12-80

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	SURFACE PAVE	MAT'L. PROD	Signals
100	100	100	100	100		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MIXTURES	PAY NO
MILES IN PROJECT	0.34	0.34			0.34
MILES PARTIALLY COMPLETED					
MILES COMPLETED	0.34	0.34			0.34
TOTAL ESTIMATED QUANTITIES (CONTRACT)	4,675	3,800			2,800
TOTAL QUANTITIES CORRECTED TO DATE	3,938	5,500			3,313
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	3,938	5,500			3,313
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					
EQUIPMENT USED DURING THE WEEK					

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO					
PERCENT					

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	No time charged			
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

Keasey, Jackmond, Hopkins, Williams, Johnsen, Glenn

RECEIVED
APR 14 1981
CONSTRUCTION BRANCH

Richards, Berg, Inloes, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

Project was completed on 9-12-80. The Notification is still pending. Semi-final is nearly completed.

cc: Construction
FHWA
Region
File

SIGNED J. W. Schell LOCATION Sylvan

5537 #8952

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

February 18, 1981

RECEIVED
FEB 20 ... DIS

IN REPLY REFER TO
FILE NO.:
CON 5
#8952

FILED
FEB 20 1981
NORMA PAULUS
SECRETARY OF STATE

Joseph, Gudger & McKeehen
Attorneys at Law
59 East 11th Avenue, Suite A
Eugene, OR 97401

Attention: Monte C. McKeehen

Gentlemen:

This will acknowledge receipt of your letter of February 3 with attached Notice of Claim on behalf of Signals and Control Systems, Inc., indicating that equipment and labor was provided to Christenson Electric, Inc., on Contract No. 8952 in the amount of $15,643.

The claim states this is in reference to the Cascade Construction Company, Inc., Contract No. 8952 for work on the Progress Interchange Offramp of FAU 9234 in Washington County.

The Travelers Indemnity Company furnished the bond on this contract. We will advise the prime contractor, surety and agent of the receipt of this claim. We will also forward it to the Secretary of State for filing.

Please advise this office when your client's claim has been paid.

Sincerely,

Robert W. Gormsen
COMMISSION SERVICES

RECEIVED
FEB 24 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

cc: Cascade Construction Co., Inc.
P. O. Box 4267
Portland, OR 97208

The Travelers Indemnity Company
Surety Department
707 S.W. Washington Street
Portland, OR 97205

Don Reger & Company
200 Market Building
Portland, OR 97201

NOTED ON C...
3-30-81 dmc

bc: Secretary of State - Please acknowledge receipt of this attached claim on the enclosed copy of this letter.

JOSEPH, GUDGER, McKEEHEN, JAMES & SHAW
ATTORNEYS AT LAW
59 EAST 11TH AVENUE
EUGENE, OREGON 97401
AREA CODE 503 - 686-2244

JON A. JOSEPH
CHARLES M. GUDGER, III
MONTE C. McKEEHEN
DAVID W. JAMES, JR.
LAWRENCE S. SHAW

REPLY TO EUGENE OFFICE

COTTAGE GROVE OFFICE
514 WHITEAKER
COTTAGE GROVE, OREGON 97424
942-7311

February 3, 1981

Clerk
Oregon Department of Transportation
Oregon State Highway Division
Transporation Building
Salem, Oregon 97310

NOTED
R. T. HAGEN

Re: Claim on Performance Bond
Contract No. 8952 - Progress Interchange Offramp

Gentlemen:

Enclosed is a true copy of the lien we are filing in the above matter.

Very truly yours,

JOSEPH, GUDGER & McKEEHEN

Monte C. McKeehen, P.C.

MCM:ej
Enclosure
cc: Signals & Control Systems, Inc.

FEB 4 1981
HIGHWAY ACCOUNTING

NOTED
V. E. SKOOG

RECEIVED
FEB 6 - 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

CLAIM ON PERFORMANCE BOND

TO: OREGON DEPARTMENT OF TRANSPORTATION, by and thorugh the Oregon State Highway Division:

NOTICE IS HEREBY GIVEN that the undersigned, SIGNALS & CONTROL SYSTEMS, INC., a Washington corporation, has a claim for certain traffic signal equipment and related labor involved in the installation thereof, as set forth on Exhibit "A" to this claim, said exhibit being attached hereto and incorporated herein as though fully set forth, and the person by whom said equipment was furnished was Signals & Control Systems, Inc., by and through its officers and employees, and the persons performing said labor to assist in the installation was Signals & Control Systems, Inc., by and through its officers and employees, Gordon O. Dale and/or David Edwin Naf; said claim being in the sum of $15,643.00 against the bond taken from Cascade Construction Company, Inc., P.O. Box 4267, Portland, Oregon 97204 and the surety thereon being Travellers Indemnity Company, #614E496-1 by way of performance bond dated June 18, 1979, for the furnishing of the equipment set forth on Exhibit "A" and related labor to assist in installation on Progress Interchange Offramp, located in Washington County, and in reference to Oregon State Highway Job No. 8952. Said equipment and labor was provided by claimant to Christenson Electric, Inc., 111 SW Columbia, Suite 480, Portland, Oregon 97201.

This notice is being filed with the Secretary of State's office or the Clerk or Auditor of the Oregon Department of Transportation, by and through the Oregon State Highway Division, according to and in conformance with ORS 279.528.

DATED this 30th day of January, 1981.

SIGNALS & CONTROL SYSTEMS, INC.

By Gordon Dale

Title: PRESIDENT

TRUE COPY
[illegible] & McKEEHEN

RECEIVED
FEB 6 - 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

EXHIBIT "A" TO
CLAIM ON BOND OREGON STATE
HIGHWAY - DEPARTMENT OF
TRANSPORTATION JOB #8952

Signals & Control Systems, Inc. equipment furnished together with labor for installation re Invoice 0451 - invoice dated June 2, 1980:

Traffic Signal Equipment for Progress Interchange	$15,643.00

RECEIVED
FEB 6 - 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

EXHIBIT "A" to CLAIM ON PERFORMANCE BOND

8752 12-30-80

(MEMORANDUM)

FORM APPROVED BY COMPTROLLER GENERAL, U.S. MAY 12, 19[illegible]

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STA[illegible] OUCHER NO.

VOUCHER FOR WORK PERFORMED UNDER PROVISIONS OF THE FEDERAL AID AND FEDERAL HIGHWAY ACTS, AS AMENDED

FHWA VOUCHER NO.

APPROPRIATION

FHWA SCHEDULE NO.

THE UNITED STATES, DR., TO *(Insert official or depositary named in project agreement)*
Treasurer of the State of Oregon

PAID BY

ADDRESS
Capitol Bldg.
Salem, OR 97310

(For use of Paying Office)

STATE
Oregon

VOUCHER TYPE *(Check Appropriate Block)*

☐ CURRENT BILLING

VOUCHER PERIOD
FROM 8-27-78
TO 9-25-80

☐ OTHER PROGRESS

☐ FINAL VOUCHER (*)

FEDERAL AID PROJECT NO.
[illegible]-8234(-2)

(*) Use Form FHWA-1447 for Final Voucher for a project constructed under certification acceptance or secondary road procedures (23 U.S.C. 117).

TOTAL ACTUAL COST	TOTAL PARTICIPATING COST	PRO-RATA OF PARTICIPATING COST CLAIMED FROM U.S.	TOTAL AMOUNT CLAIMED FROM U.S.	LESS PREVIOUS PAYMENTS	NET AMOUNT CLAIMED
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	$100,[illegible].45	95.00%	$94,225.93	$94,225.93	$ 0.00

RECEIVED DIVISION OFFICE
BY [illegible] DATE

DIVISION OFFICE REVIEW MADE
BY DATE 12/30/80

PASSED FOR PAYMENT
V.E. Shaw, [illegible]

R/W

$ 0.00

PREVIOUS EDITIONS ARE OBSOLETE

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS (Payee must not use this column)
	Progress Intchge. off Ramp Washington County					
	Type of Code R.O.W.					
	Right-of-Way (Sta. "SFB" 37+60)					
	Right of Way	All	Required		$ 80,751.80	
	Total Right of Way Costs				$ 80,751.80	
	Acquisition					
	State	All	Required		21,280.13	
	Total Acquisition Costs				$ 21,280.13	
	Relocation Expense					
	Moving Cost 1 Business	All	Required		$ 7,788.50	
	Total Participating Cost				$109,820.43	
	Nonparticipating Items					
	Right of Way	All	Required		$ 11,250.00	
	Acquistion Expense	All	Required		2,470.06	
	Total Nonparticipating Cost				$ 13,720.06	
	TOTAL COST				$123,540.49	
	Participating costs are for R/W actually incorporated in the final project and all costs have been previously certified by the R/W Engineer.					
	Plans approved 2/15/79 by FHWA. No revisions necessary					
	Prepared based on Participating Costs as shown on Federal Billing as of 12/11/80.					

AMOUNT CARRIED FORWARD .....

GPO 944 892

VICTOR ATIYEH
GOVERNOR

Department of Transportation

HIGHWAY DIVISION

TRANSPORTATION BUILDING, SALEM, OREGON 97310

December 4, 1980

In Reply Refer to
File No
CON 5 #8952

NOTED
H. S. COULTER

Cascade Construction Company, Inc.
Post Office Box 4267
Portland, OR 97208

Re: Time Extension Request
Progress Interchange Off Ramp
Contract No. 8952
FAP No. M-IX-9234(4)

Gentlemen:

Your request for additional contract time in which to complete the above project has been carefully reviewed. A time extension of 53 calendar days is granted for Phase A of the contract due to utility delay and the performance of extra work. A time extension of 104 calendar days is granted for Phase B of the contract due to utility delays and extra work performed. The revised completion time for Phase A of contract is 233 calendar days. The revised completion time for Phase B of the project is 344 calendar days. There remains 111 calendar days of liquidated damages under Phase A of this project and 101 calendar days of liquidated damages under Phase B of this project.

If you wish to submit additional data or review this matter further, please contact Resident Engineer Cochell.

Very truly yours,

C. T. Keasey
Assistant State Highway Engineer

cc: H. S. Coulter (w/att.)
Ed Hardt "
Jim Cochell "
FHWA "
Bob Church

	Info	FOR	REFER TO	DEC 5-'80	RECEIVED STATE HWY ENGR
	Inves				
	R/D				
	D/R				
	Sign				
	Act				
	File				

Note: This time extension is participating for all time except 5 calendar days of time granted under both Phase A and Phase B due to utility delays.

Form 734-3122

STATE OF OREGON

INTER-OFFICE MEMO

TO: BRYANT JACKMOND
Contract Administration Engineer

DATE: October 28, 1980

FROM: MARION CRAFT
Region Construction Engineer

SUBJECT: PROGRESS OFF RAMP
Contract No. 8952
Time Extension Request

Attached is a time extension request from Cascade Construction Co, including letters and documents supporting their request. Also attached is an analysis of the time overrun by Jim Cochell and his assistant, Art Sasse.

The contractor lists several items causing the delay in completion of the job, such as conflicts with utility poles, delays in the suppliers getting signal equipment, and some signal revisions by the State, and asks for all liquidated damages to be returned. Jim has analyzed each item plus one not mentioned by the contractor, and has recommended 53 days be awarded to Unit A, leaving 7 days left as liquidated damages, and has recommended 89 days be returned under Unit B, leaving 116 days of damages under that unit. This will mean there are 123 days left as liquidated damages.

I've gone over the contractor's and Cochell's analysis, and reviewed the progress and activities on this project, and believe Jim's analysis is fair. The contractor did very little work on this project during the summer and fall of 1979, and never did really get in and pursue the work, but rather, treated this project like a "fill in" project, in between his other projects in the area.

I concur in Jim's recommendation of 53 days for Unit A and 89 days for Unit B being returned to the contractor.

12-3-80

CTK: Met with Region and Resident and reviewed. We now concur that 53 days should be granted for both phase "A" and phase "B" and an additional 51 days for phase "B". Revised completion times would be 233 calendar days for phase "A" and 344 calendar days for phase "B". Remaining liquidated damages would be 111 days for "A" and 101 days for "B".

MC/gw
Attachment
cc: Jim Cochell

RECEIVED
OCT 30 1980
CONSTRUCTION BRANCH

Kessey, Jackmond J, Hopkins, Williams, Johnson, Olson, Richards, Berg, Inloes, Widmer, Gebauer, Church

Contains Recycled Materials
1-128-1307

SP*73683-128

FORM E-30 (REV. 10-69)

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Sylvan
10-21-80

TE
UE
SO
TO

SUBJECT: Time Extension Request
Progress Off Ramp
Progress
Contract No.8952

To: Marion Craft
Region Construction Engineer
Milwaukie

Attached is a time extension request from Cascade Const. Co. on the above project. This job consisted of grading, paving and signal installation. Below are some pretinent facts concerning this request:

Contract awarded	6-14-79	
Contract time specified	Part A: 180 CD	Part B: 240 CD
Calendar count started	6-26-79	
Contractor began work	8-13-79	
Contract Completed	Part A: 8-7-80	Part B: 9-12-80
Liquidated damages	Part A: 229	Part B: 205

This contract was in two parts and in discussion of this extension we refer to "A" time (All work done under contract except Signing, Illumination and Traffic Signals) and "B" time (Signing, Illumination and Traffic Signals).

The contractor is asking for an increase in working days from (a) 180 to 445 and (b) 240 to 445. This would cover all liquidated damages incurred on this project.

"A" Time

'art a

The contractor got off to a very slow start, working only 3 of the first 97 calendar days. It should be noted that these first 97 days fall into what is considered the prime construction season. The contractors request for any extension based on having to work during the wet spring months as opposed to the drier summer and fall months is the contractors fault and not a viable excuse for an extension of time. No days awarded.

'art b

The contractor refers to a delay caused due to "others" not removing poles in the roadway. It appears that there was a problem in getting General Telephone to remove a pole at "F" 36+50. This pole was about 15 feet inside the roadway area. The contractor graded tosubgrade and spread base rock around this pole. It is felt that the contractor exercised a concerted effort in getting the pole moved and as such an award of 5 days should be made. (5 days awarded)

"A" Time Continued

art c — The contractor refers to "work items included in A time that were not installed due to a delay incurred in the traffic signals." The only item in"A" time that may have been affected by a delay in the traffic signals would be the temporary traffic signal installation. Since this item was deleted from the contract, after it was determined that the contractor had progressed past a point where the temporary signals were needed, it is felt that no awarding of additional time is warrented at this time. No days awarded

art d — In reguards to Price Agreement #4, written 5-28-80 and approved on 6-19-80,the additional guard rail items called for in this P.A. were actually installed before the price agreement was written. It should be mentioned that because of small quantities of guard rail items on this project the guard rail subcontractor found it desireable to complete operations with one mobilization. However it appears the contractor was delayed slightly in aquiring the additional items. It is felt that a delay of 7 days was caused. (7 days awarded)

art e — The contractor failed to mention the delay caused by the revision of the retaining wall. The revision delayed construction of the wall and work on the "E" line grade. The delay caused by redesigning and getting approval of the new design amounted to 11 days. Delays in recrdering the reinfrocing steel represent about 21 days. The increased time involved in constructing the enlarged structure totaled 5 days. The total delay amounted to 41 days. (41 days awarded)

"B" Time

art a — Under the "B" time delays the contractor refers to problems which developed in getting his supplier to deliver goods which were supposed to be delivered no later than 120 days after ordering. A full year later some of the items had not been delivered. The contractor alludes to some 68 long distance phone calls made to the supplier trying to get delivery of ordered goods. While the State is in no way responsible for difficulties arising between contractor and supplier, it is felt that a definite effort was made to obtain the missing items. The time involved in getting these items does seem a bit excessive. The items ordered thru Signal and Control Systems represent no more than 35% of the time required in a typical signal installation. These items are also generally incorporated near the end of the signal installation, thus allowing the contractor to complete cutting loops, laying conduit, erecting poles and stringing wires. It is evident that these steps were not accomplished until 5-9-80. From this time until 7-21-80, the contractor worked 19 days. The other 54 days may be classified as a delay. (54 days awarded)

Not eligible for time ext.

art b — Price agreement #5 requiring the furnishing and installation of 400 feet of THWN wire was written 5-28-80 and approved 6-19-80. Any delay that may have been caused by the addition of this price agreement would have been already awarded under "B" Time , Part a.

art c — Price agreement #6 was writtne 6-25-80 and approved 7-23-80. This price agreement called for the rephasing of the signal controller. The contractor had completed the project except for the controller by 7-23-80. His operations were curtailed until delivery of the controller on 8-28-80. It is felt that a delay of 35 days were caused by the rephasing. (35 days awarded)

Time Extension Request Summary

Total time awarded under "A" time	
Part a	0 days — "A" & "B"
Part b	5 days —
Part c	0 days — "A" & "B"
Part d	7 days —
Part e	41 days — "A" & "B"
Total time	53 days

Total time awarded under "B" time	
Part a	54 days — Delete = 0
Part b	0 days
Part c	35 days — use 51 days — signal revision delay June 23 to Aug. 14
Total time	89 days — 104 days

The special provisions for this project state that should liquidated damages become payable concurrently under any combination of (a) or (b), the daily amount of liquidated damages will be $100.

The total liquidated damages that had been assessed against "A" time amounted to 60 days. If 53 days are awarded the contractor, there will remain 7 days of liquidated damages.

The total liquidated damages that had been assessed against "B" time amounted to 205 days. If 89 days are awarded the contractor, there will remain 116 days of liquidated damages.

The total number of days awarded to the contractor under both areas of this contract is 142.

The total number of days of liquidated damages under both areas of this contract is 123.

A graph used in determining number of days awarded is being sent with the request for time extension.

Disagree with method to arrive at Liq. damages.

Arthur Sasse

Arthur Sasse Ass't.Res.Engr.

10-22-80

Date

8952

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State
MONTHLY TRANSACTION NUMBER 10-1711		Oregon
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County Washington
MODIFICATION NUMBER 1	10/21/80	Project Number M-IX-9234(4)

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on July 16, 19 79, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 511,376.00	$ 582,971.00
	207,934.00 -M	207,934.00 -M
Federal funds	$ 234,051.00 -IX	$ 294,873.00 -IX
Other revisions		

This modification is made for the following reasons: To include approved funds for railroad work.

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 21st day of October, 1980.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By _____

Asst. State Highway Engineer
(Title)

XRX For: H.S. Coulter

State Highway Engineer
(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: G.L. Green

Form FR-2A
(Rev. 10-78)

Previous editions are obsolete

Gen. File

Oregon State Highway Division
Salem, Oregon October 22, 1980

Federal Aid Project
No. M-IX-9234(4)

Progress Interchange Off-Ramp
Scholl's Hwy. (FAU 9234)
Washington County

REVISED PROJECT AGREEMENT ESTIMATE

Type Code Y008
Channelization (Progress Interchange)

Subtotal of previous estimate of July 6, 1979	$370,642.50
Approved Additional Item	
Relocation of Railroad Signals (Work by Southern Pacific)	$ 41,850.00
SUBTOTAL	$412,492.50
Engineering	50,036.50
TOTAL	$462,529.00

Type Code Y031
Signals

Total the same as previous estimate of July 6, 1979 $ 90,697.00

Length of Project ---------- 0.00 mi.

SUMMARY OF FUNDS

Description	Code	Total Cost	Federal Funds	State Funds
Channelization	M-W36	$236,021.00	$207,934.00	$28,087.00
Channelization	IX-823	226,508.00	192,532.00	33,976.00
Signal Y031	IX-823	90,697.00	77,092.00	13,605.00
SUBTOTAL		$553,226.00	$477,558.00	$75,668.00
Reserve Y031	IX-823	29,745.00	25,249.00	4,496.00
TOTAL		$582,971.00	$502,807.00	$80,164.00

Group 1 48%(W36) Group 2 52%(823)
Contrac No. 8952
Prefix 134-1930
Prefix 334-1035

8952

VICTOR ATIYEH
GOVERNOR

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

In Reply Refer to
File No :
PRO 6-2

August 28, 1980

TO: G. L. Green, Division Administrator
Federal Highway Administration

Original Signed By
D. E. Swan

FROM: D. E. Swan
Operation Programming Engineer

SUBJECT: Program Change
Project No. M-IX-9234(4)
Progress Interchange Off Ramp
Washington County

I request your approval of a program change to add relocation of the existing railroad crossing signals at OPUC crossing FD-752.61 located on the Scholls Highway adjacent to the frontage road intersection.

The reason for this request is that in providing a left turn refuge (Drg. No. 4520) for the frontage road (Cascade Blvd.) the outside travel lanes on Scholls Highway have been moved nearer to the existing railroad signals which necessitates their relocation to maintain adequate clearance.

Attached is a copy of a proposed agreement with Southern Pacific Transportation Company which was approved by the Highway Division on August 20, 1980.

I further request authorization to proceed with work by the railroad company at an estimated total cost of $41,850 with obligation of Federal Interstate Transfer funds of $35,573.

JLG:bke
Attachment

cc: R. Trygstad
[redacted]

Form 734-3122

8952

STATE OF OREGON
Department of Transportation
Metropolitan Branch

INTER-OFFICE MEMO
Telephone: 238-8231
Date: August 20, 1980

TO: TED SPENCE
Policy & Planning Coordinator

File No: 134-1930

FROM: MAX J. KLOTZ
Metro Program Manager

SUBJECT: Progress Interchange Off-Ramp
to Scholls Ferry Road
Fund Adjustment

The construction of the Progress Interchange Off-Ramp project is nearing completion. Our expenditures, actual and anticipated, are in excess of MSD's TIP authorized funds.

Work	TIP (ff)	Est. Cost (ff)	Diff.
PE	$ 45,213 FAU	$ 46,624	+$ 1,411
R/W	$ 97,860 FAU	$108,271	+$10,411
Const.	$183,527 FAU	$183,527	-
Const.	$307,761 e(4)	$307,761	-
			$11,822
			use $15,000

The shortfalls in PE and R/W can be covered by the FAU construction funds. This of course makes a shortfall in the FAU construction funds which have to be taken care of by the e(4) funds, making a deficiency there. This has to be solved by transferring funds from another project. Please request an MSD Administrative Adjustment shifting $15,000 federal funds from 72nd Avenue Interchange Construction to Progress Interchange Off-Ramp construction. A modified MSD Request for Funding Authorization Adjustment is attached.

MA PDM PDE FFM SPC
ODOT - METRO

AUG 20 1980

BM PAR PPC FILE T/A

METRO

METROPOLITAN SERVICE DISTRICT

REQUEST FOR FUNDING AUTHORIZATION ADJUSTMENT

DETAILS OF ADJUSTMENTS

PROJECT RECEIVING FUNDS Progress Interchange Off-Ramp to Scholls Ferry Road

SPONSORING JURISDICTION ODOT

1. FUNDING SOURCE, ie, FAU, Mt Hood, I-505, etc FAU

	PE	R/W	CONST	OTHER	TOTAL
Current TIP Authorization	$ 45,213	$ 97,860	$ 183,527	$	$ 326,600
(+) Transferred Amount	—	—	—		—
(=) Revised Authorization	46,624	108,271	171,705		326,600

2. FUNDING SOURCE, ie, FAU, Mt Hood, I-505, etc Mt. Hood Transfer

	PE	R/W	CONST	OTHER	TOTAL
Current TIP Authorization	$	$	$ 307,761	$	$ 307,761
(+) Transferred Amount			15,000		15,000
(=) Revised Authorization			322,761		322,761

PROJECT PROVIDING FUNDS Hwy. 217/72nd Avenue Interchange

SPONSORING JURISDICTION ODOT

FUNDING SOURCE, ie, FAU, Mt Hood, I-505, etc Mt. Hood Transfer Funds

	PE	R/W	CONST	OTHER	TOTAL
Current TIP Authorization	$ 144,148	$ 201,248	$ 2,085,688	$ 2,431,084	$ 2,431,084
(-) Transferred Amount			15,000		15,000
(=) Revised Authorization	144,148	201,248	2,070,688		2,416,084

BASIS FOR ADJUSTMENTS

REASONS PROJECT RECEIVING FUNDS NEEDS ADDITIONAL FEDERAL SUPPORT: Right-of-way costs exceeded estimate.

REASONS FEDERAL FUNDING CAN BE REDUCED FOR PROJECT RELINQUISHING FUNDS: Estimated construction cost is less than MSD Authorization.

HOW IS THE PROJECT RELINQUISHING FUNDS STILL VIABLE? Anticipate starting Final Design and Right-of-way descriptions soon. The remaining funds are adequate to complete the project.

Metro Transaction #

AGREEMENT TO TRANSFER FUNDS

DATE OFFICIAL APPROVAL

JURISDICTION PROVIDING FUNDS

PROJECT RECEIVING FUNDS Progress Interchange Off-Ramp to Schorls Ferry Road

SPONSORING JURISDICTION ODOT

1. FUNDING SOURCE, ie, FAU, Mt Hood, I-505, etc FAU

	PE	R/W	CONST	OTHER	TOTAL
Current TIP Authorization	$ 45,213	$ 97,860	$ 183,527	$	$ 326,600
(+) Transferred Amount	—	—	—		—
(=) Revised Authorization	46,624	108,271	171,705		326,600

2. FUNDING SOURCE, ie, FAU, Mt Hood, I-505, etc Mt. Hood Transfer

	PE	R/W	CONST	OTHER	TOTAL
Current TIP Authorization	$	$	$ 307,761	$	$ 307,761
(+) Transferred Amount			15,000		15,000
(=) Revised Authorization			322,761		322,761

PROJECT PROVIDING FUNDS Hwy. 217/72nd Avenue Interchange

SPONSORING JURISDICTION ODOT

FUNDING SOURCE, ie, FAU, Mt Hood, I-505, etc Mt. Hood Transfer Funds

	PE	R/W	CONST	OTHER	TOTAL
Current TIP Authorization	$ 144,148	$ 201,248	$ 2,085,688	$ 2,431,084	$ 2,431,084
(-) Transferred Amount			15,000		15,000
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HOW IS THE PROJECT RELINQUISHING FUNDS STILL VIABLE? Anticipate starting Final Design and Right-of-way descriptions soon. The remaining funds are adequate to complete the project.

Metro Transaction #

AGREEMENT TO TRANSFER FUNDS

	DATE OFFICIAL APPROVAL
JURISDICTION PROVIDING FUNDS	
JURISDICTION RECEIVING FUNDS	
METRO EXECUTIVE OFFICER (If transfer between jurisdictions)	
METRO COUNCIL (If flagged by Executive Officer)	

cc ODOT, Metro Branch
Form 800129

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

9952

LETTER OF APPROVAL AND/OR AUTHORIZATION

6-23-80

FEDERAL AID PROJECT NO.: M-IX-9234(4)

STATE PROJECT NO.: See below

FROM: G. L. Green, Division Administrator
FHWA - Oregon Division

PROGRAM NO.:

ITEM NO.: 80173

COUNTY NAME: Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
JUN 27 '80
REFER TO
Machtolf
FOR

Info	Invest	R/O	D/R	Sign	Act	File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5/2/79	5/22/80	FAU 9234	Secondary 143

GENERAL LOCATION:

Progress Interchange Off-kamp

GENERAL DESCRIPTION OF WORK:

Install 3" Conduit under railroad

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
- ☐ LOCATION ONLY
- PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
- ☐ PREPARATION
- ☐ OTHER (Specify)

- ☐ ACQUISITION OF RIGHT-OF-WAY
- CONSTRUCTION - ADVERTISE FOR RECEIPT
- ☐ OF BIDS
- ☒ CONSTRUCTION - PROCEED ON ~~XXXXXXXX~~ ~~XXXXXXXXX~~ FORCE ACCOUNT BASIS

REMARKS

This will confirm the advance authorization date of 5/22/80, as requested in Mr. Keasey's letter of 6/18/80 as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 3 is approved for TEC NTE $2,000 Federal Funds $1,700.

"Increases in the amount authorized hereon are subject to the availability of funds as determined by obligation ceilings, appropriations, and Urban Mass Transportation Administration releases."

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
6/23/80	J. K. Haseney	for Division Administrator

Form FP-1240 (REV. 8-70) EXISTING STOCKS OF FORM PR-1240 (REV. 8-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1975—631-466

#8952

VICTOR ATIYEH
GOVERNOR

Oregon State Highway Division

TRANSPORTATION BUILDING, SALEM, OREGON 97310

RAILROAD COMPANIES
FILE No. 1010 ROW 18-2

March 27, 1980

R. L. Johnston
Southern Pacific Transportation Co.
324 Union Station
Portland, OR 97209

Pipe Line Indenture
Progress Interchange Offramp
FAU 9234(Scholls Highway)
Washington County
Contract No. 8952
ODOT Agreement No. RR-1010

Dear Dick:

Returned, herewith, is Southern Pacific Transportation Company's fully-executed counterpart of an Indenture covering the proposed installation of a 1" electrical conduit within a 3" casing, crossing SPTC property at MP 752.63. This Permit is to allow detector leads for an adjacent traffic signal to be carried under the railroad.

Cordially,

Roger D. Trygstad
Railroad & Utility Engineer

RDT/vlw
Enc.
bc: G. L. Green - w/copy
Robert Gormsen - original
C. T. Keasey - w/copy
J. L. Sollis
J. B. Boyd
D. E. Swan - w/2 copies
Ed Hardt - w/ copy
Jim Cochell - w/ copy
L. E. George - w/copy

4/4 called Adele ~~not~~ on app. report

NOTE TO COCHELL: I understand that you are planning on having this work done by State Forces. If this should change, please remember that the contractor will have to obtain the necessary railroad insurance and we will have to pay the railroad protective costs.

U. S. DEPARTMENT OF TRANSPORTATION — FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

8-15-79

FEDERAL AID PROJECT NO.: M-IX-9234(4)

STATE PROJECT NO.: See below

COUNTY NAME: Washington

PROGRAM NO.:

ITEM NO.: 80173

PROGRAM STAGE (Check): ☐ 1. ☐ 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

TO:
Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	8-2-79	FAU 9234	Secondary 143

GENERAL LOCATION:
Progress Interchange Off-Ramp

RECEIVED
STATE HWY ENGR
AUG 16 '79
REFER TO
FOR

Info	Inves	R/D	D/R	Sign	Act	File

GENERAL DESCRIPTION OF WORK:
Relocate Signal Controller, Meter Base and Interties

8-16 ones

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☒ CONSTRUCTION - PROCEED ON ~~AN X UNIT~~ FORCE ACCOUNT BASIS

REMARKS

This will confirm the advance authorization date of August 2, 1979, as requested in Mr. Keasey's letter of August 7, 1979 as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 1 is approved for TEC NTE $1,700 - Federal Funds $1,445.

"Approval contingent upon available funds within current project authorization or request for additional IX funds being submitted and granted."

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
8-15-79		for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

★ U.S. GOVERNMENT PRINTING OFFICE: 1970—781-018

8952 7-16-79 STATE COPY

OMB No. 04-R2089

TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State
MONTHLY TRANSACTION NO. 7-140	FEDERAL-AID PROJECT AGREEMENT	Oregon
		County Washington
		Project No. M-1X-9234(4)

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

Progress Interchange Off-Ramp

PROJECT CLASSIFICATION OR PHASE OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING AND RESEARCH (HP & R)		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	5-2-79	0.00
OTHER *(Specify)*		

ESTIMATED TOTAL COST OF PROJECT	FUNDS Pro Rata M-36, 90.15%; 823, 85% FEDERAL FUNDS
M-36 $236,027.00 $ 823 $275365.00	$207,934.00 $ $234,061.00

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By Ed Johnston

Assistant State Highway Engineer
(Title)

By: H. S. Coulter

State Highway Engineer
(Title)

By _____

_____
(Title)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: G. L. Green

Date executed by Division Administrator JUL 16 1979

Form PR-2 (Rev. 10-76) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PRFPARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation..

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects. No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtednesss of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 307 (c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Administrator concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

File

Oregon State Highway Division
Salem, Oregon, July 6, 1979

Federal Aid Project
No. M-IX-9234 (4)

PROGRESS INTERCHANGE OFF-RAMP
SCHOLLS HWY. (FAU 9234)
WASHINGTON COUNTY

Project Agreement Estimate.

Type Code Y008
Channelization (Progress Interchange)

Mobilization	All Required		$16,050.00
Temporary Protection and Direction of Traffic	All Required		3,000.00
Temporary Signs	309 Sq.Ft.	10.00	3,090.00
Temporary Plastic Safety Markers	41 Each	100.00	4,100.00
Temporary Traffic Signal Installation	All Required		18,140.00
Flagmen	400 Hour	20.00	8,000.00
Temporary Illumination	All Required		1,495.00
Clearing and Grubbing	All Required		8,000.00
Removal of Structures and Obstructions	All Required		2,000.00
Ditch Excavation	885 Cu.Yd.	6.00	5,310.00
General Excavation	4,675 Cu.Yd.	5.50	25,712.50
Trench Excavation	440 Cu.Yd.	5.50	2,420.00
Finishing Roadbed and Slopes	All Required		4,500.00
Watering	90 M.Gal.	20.00	1,800.00
Structure Excavation	50 Cu.Yd.	20.00	1,000.00
Aggregate Base	3,800 Ton	7.50	28,500.00
Class "B" Asphalt Concrete	2,800 Ton	20.75	58,100.00
Structural Concrete in Wall	40 Cu.Yd.	305.00	12,200.00
Reinforcement in Wall	2,600 Lb.	0.75	1,950.00
12-inch Culvert Pipe	64 Lin.Ft.	13.00	832.00
21-inch Culvert Pipe	172 Lin.Ft.	17.00	2,924.00
8-inch Sewer Pipe	28 Lin.Ft.	17.00	476.00
12-inch Sewer Pipe	132 Lin.Ft.	18.00	2,376.00
18-inch Sewer Pipe	348 Lin.Ft.	18.00	6,264.00
21-inch Sewer Pipe	60 Lin.Ft.	30.00	1,800.00
Extra for Pipe Under Pavement	140 Lin.Ft.	17.00	2,380.00
Concrete Manholes	1 Each	1,200.00	1,200.00
Concrete Inlets, Type G-2	4 Each	450.00	1,800.00
Concrete Inlets, Type G-2M	4 Each	426.00	1,704.00
Concrete Inlets, Type CG-2	2 Each	460.00	920.00
8-inch Drain Pipe	180 Lin.Ft.	8.00	1,440.00
Fiber Filter	150 Sq.Yd.	4.50	675.00

Oregon State Highway Division
Salem, Oregon, July 6, 1979

Federal Aid Project
No. M-IX-9234 (4)

Gravel in Drains	15	Cu.Yd.	40.00	600.00
Guard Rail, Type 2A	75	Lin.Ft.	14.32	1,074.00
Guard Rail Anchors, Type I	1	Each	275.00	275.00
Rail End Pieces, Type C	1	Each	143.00	143.00
Concrete Driveways	30	Sq.Yd.	30.30	909.00
4-inch Concrete Surfacing	17	Sq.Yd.	21.00	357.00
Concrete Curbs	1,040	Lin.Ft.	5.85	6,084.00
Extra for Asphalt Approaches	6	Each	200.00	1,200.00
Concrete Barrier	888	Lin.Ft.	23.75	21,090.00
Plastic Glare Shield Blades	250	Each	22.00	5,500.00
Reflectors	40	Each	3.05	122.00
Roadside Seeding and Mulching	1	Acre	1,320.00	1,320.00
Removal of Existing Sign Installations	All Required			300.00
Wood Sign Posts	All Required			1,650.00
Sign Support Footings	All Required			7,205.00
Breakaway Sign Posts	All Required			2,046.00
Single Post Breakaway Sign Supports	All Required			495.00
Cantilever Sign Structures	All Required			17,380.00
Signal Pole Sign Mounts	All Required			935.00
Type "A" Signs in Place	400	Sq.Ft.	17.60	7,040.00
Type "C", "D" and "R" Signs in Place	71	Sq.Ft.	9.00	639.00
Type "EE" Signs in Place	50	Sq.Ft.	9.90	495.00
Type "I" and "U" Signs in Place	20	Sq.Ft.	11.00	220.00
Move and Modify Existing Signs	All Required			1,650.00
Sign Illumination Equipment	All Required			2,047.00
Thermoplastic Pavement Arrows	2	Each	275.00	550.00
Pole Foundations	All Required			3,595.00
Roadway Lighting Poles and Bracket Arms	All Required			23,780.00
Luminaires and Ballasts	All Required			1,880.00
Switching, Conduit, Wiring, Lamps, etc.	All Required			28,203.00
				$ 368,942.50

Anticipated Items

Permanent Pavement Striping	All Required		$ 700.00
Temporary Pavement Striping	All Required		500.00
Temporary Erosion Control	All Required		500.00
			$ 1,700.00
	Subtotal		$ 370,642.50
	Engineering		50,036.50
	Total		$ 420,679.00

Oregon State Highway Division
Salem, Oregon, July 6, 1979

Federal Aid Project
No. M-IX-9234 (4)

Type Code Y031
Signals

Traffic Signal Installation, Complete	All Required	$ 79,910.00
	Subtotal	$ 79,910.00
	Engineering	9,787.00
	Engineering (Sig. Cont. Testing)	1,000.00
	Total	$ 90,697.00

Length of Project - - - - - - - - - - - - - 0.00 mi.

Work Retained in Program Status
(not included in amounts below)

State relocation of Signal Controller	All Required	$ 200.00

SUMMARY OF FUNDS

Description	Code	Total Cost	Federal Funds	State Funds
Channelization	M-W36 (88.1%)	$ 236,021	$ 207,934	$ 28,087
Channelization	IX-823 (85%)	184,658	156,959	27,699
Signal	IX-823 (85%)	90,697	77,092	13,605
Total		$ 511,376	$ 441,985	$ 69,391

Group 1 48% : W 36
Group 2 52% : 823
Contract No. 8952
Prefix 134-1930
Prefix 334-1035

8952

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: M-9234(1)

STATE PROJECT NO.: See below

COUNTY NAME: Washington

PROGRAM STAGE (Check): ☐ 1. ☐ 2.

FROM: G. L. Green, Division Administrator

PROGRAM NO.:

ITEM NO.: 71436

TO:

Mr. H. S. Coulter
State Highway Engineer
Salem, Oregon

DATE PS & E APPROVED:

DATE AUTHORIZATION EFFECTIVE: 3-13-79

FEDERAL ROUTE NUMBER: FAU 9234

STATE ROUTE NUMBER: Secondary 143

GENERAL LOCATION: Progress Interchange Off-Ramp

GENERAL DESCRIPTION OF WORK: Program Change

RECEIVED
STATE HWY ENGR
JUL 5 - '79
REFER TO
Mailing
FOR

Info	Inves	R/W	D/R	Sign	Act	File

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE

☐ LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☒ OTHER (Specify) See below - Program Change

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letters of 3-13-79 and 5-18-79 I approve the revised Preliminary Engineering costs to a TEC of $48,000 with Federal participation limited to $41,840.

(Incr TEC $18,000 - F.F. $16,100)

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
7-2-79	G. K. Hansen for	Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-767

8952

ROBERT W. STRAUS
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

June 13, 1979

TO: Peggy O'Connell

FROM: Bill Hayden

SUBJECT: E-4 Projects Pending Approval by FHWA/UMTA Headquarters

The following Interstate Substitution Projects are currently pending approval at FHWA/UMTA Headquarters offices. All of these projects are ready to go to construction this summer. The only thing holding up contracts is FHWA/UMTA approval. I would appreciate your assistance in expediting approvals.

Project Number	Name	Date Submitted
1X-9699 (1)	S.E. Glenwood to Crystal Springs Blvd.	3-29-79
1X-9407 (3)	Capital Hwy. at Huber	5-16-79
1X-9234 (4)	Progress Interchange Off-ramp	4-27-79
1X-26 (10)	S.E. Morrison Bridge Ramp	4-24-79
1X-9665 (7)	Oatfield Rd. at Jennings Ave.	4-24-79
1X-9659 (5)	Clackamas Hwy. to Gladstone City Limits	4-24-79

BH:jmy
cc: Fred Klaboe
bc: Don Adams
Buzz Swan
Ted Spence
Bob Royer
Larry Rulien

RECEIVED
STATE HWY ENGR
JUN 13'79
REFER TO
FOR
Jmy | Jmc | R/D | D/R | Spn | Act | Site

8952

May 29, 1979

Washington County Fire
District #1
17880 S.W. Blanton
Aloha, Oregon 97006

Attn: Larry L. Eleby
Batt. Chief-Comm.

Washington County
Board of Commissioners
Courthouse
Hillsboro, Oregon 97123

Attn: Jo Ann Johansen
Clerk of the Board

Gentlemen:

On May 24, 1979 a satisfactory bid was received from Cascade Construction Co., Inc., P. O. Box 4267, Portland, OR 97208 for construction on the Progress Interchange Off-Ramp Section, FAU 9234. The advance deposit based on the anticipated construction cost of their bid is as follows:

Bid Items	State	Fire Dist. #1
	$445,368.42	$ 3,484.08
Permanent Pavement Striping	700.00	
Temporary Pavement Striping	500.00	
Temporary Erosion Control	500.00	
Signal Controller Testing	2,856.40	43.60
State Relocation of Signal Controller	200.00	
4½% Contingencies	20,170.12	158.75
(9%) Engineering	40,340.23	317.49
ESTIMATED TOTAL COST	$508,735.17	$ 4,003.92

Fire District's Advance Deposit:
6% of $4,003.92 = $240.24 or say $240.00

This project will be awarded upon receipt of your advance deposit, which should be in this office no later than June 15, 1979.

Please make your check for $240.00 payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, OR 97310.

Very truly yours,

ORIGINAL SIGNED BY
D. E. SWAN

D. E. Swan
Operations Programming Engineer

FH:dmc

bc w/AD#641: Jon Rose, Federal Aid Specialist
Vern Skoog-Please return completed AD#641 when check is received.

6-6-79
Received check
AD 641 - 240
Project Accepted.
Notified Jon Rose.
H

8952

May 16, 1979

Washington County Board of Commissioners
Courthouse
Hillsboro, OR 97123

Attention: JoAnn Johansen
Clerk of the Board

MISC. CONTRACTS and
AGREEMENTS No. 6875

Gentlemen:

Attached for your files is a fully executed copy of an agreement concerning construction of the Progress Interchange Off-Ramp Section of the Scholls Highway in Washington County.

We are retaining a fully executed copy of this agreement for the Transportation Commission's files.

Sincerely,

C. W. Read
COMMISSION SERVICES

bkr

Attachment

bc: Gerald Wimer (agreement attached)

#9952

May 9, 1979

Washington County Fire District No. 1
17880 S. W. Blanton
Aloha, OR 97006

MISC. CONTRACTS AND AGREEMENTS No. 6971

Gentlemen:

Attached for your records is a fully executed copy of a letter-form agreement covering installation of emergency vehicle pre-emption devices on traffic signals at the Progress Interchange Section of the Scholls Highway.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Sincerely,

C. W. Head
COMMISSION SERVICES

fkm

Att.

cc Project Mgt. (agree. att.)

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

8952

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: IX-0234(4)

STATE PROJECT NO.: See below

FROM:
G. L. Green, Division Administrator
FHWA - Oregon Division
Salem, Oregon

PROGRAM NO.:

ITEM NO.: 80173

COUNTY NAME: Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
JUN 18 '79
REFER TO
FOR
Info. | Invest. | R/D | D/R | Sign | Act | File

6-18 OK JC

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-2-79	5-2-79	FAU 9234	Secondary 143

GENERAL LOCATION:

Progress Interchange Off-Ramp

GENERAL DESCRIPTION OF WORK:

Grade, drain, pave and traffic signals.

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☒ OTHER (Specify) Temp/Pavement Striping (SF) $500
Perm/Pavement Striping (SF) 700
Temp/Erosion Control 500

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

After concurrence in award you are authorized to proceed with those items listed above as shown in your Estimate.

Mr. Swan's 4-30-79 request and certifying statements are accepted.

PS&E documents for the subject project have been reviewed and are approved at a total estimated cost of $541,121 - Federal Funds $467,234.

A signed Title Sheet is returned herewith.

(IX TEC $305,100 Fed.Funds $259,300
FAU TEC 236,021 Fed. Funds 207,934)

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-2-79	D. K. Swanson	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1975—631-606

8952

STATE OF OREGON

INTEROFFICE MEMO

Metro Technical Services DEPT. 238-8231 TELEPHONE

TO: D. H. MOEHRING
Ass't. State Highway Engineer

DATE: April 26, 1979

FROM: MAX J. KLOTZ
Metro Technical Services Engineer

SUBJECT: Progress Interchange Ramp
Prefix; 134-1930

Gary Zehner asked if there were adequate funds approved by MSD for three projects that will be going to bid soon.

The answers I have been able to dig out are as follows:

wash 9234

[redacted]

Unobligated	F.F.	=	Total Funds
E(4)	$252,761		$297,366
FAU	207,934		236,289
			$533,655 - Sub-Total
Obligated FAU Funds $123,600		=	$143,721
			$677,376 - Funds for Project

The most recent construction estimate including E & C is $493,000. The P.E. & R/W costs through March are $126,000. There will be some additional costs yet before the project is bid, but it appears the funds will be adequate.

S.E. Morrison Bridge Ramp

Bill Pettis of MSD advised me by phone that MSD now has $172,036 federal funds authorized for this project. This includes $9,000 for P.E. and $163,036 for construction. Our latest estimate is $23,000 total dollars for P.E. and $140,000 total dollars construction, for a total of $163,000. Since the authorized federal funds equate to $202,395 total dollars, we appear to be well within the authorization.

N. Tigard Interchange - Beef Bend Road

This job consists of two projects, N. Tigard Interchange-Bull Mountain Road (City of Tigard e(4),)and Pacific Highway West at Beef Bend Road (State signal project with FAP funds) that were combined to simplify signal interties and construction.

MSD has authorized the following amounts for the City of Tigard project:

Obligated	$ 68,640	
Unobligated	912,269	(as of Sept. 30, 1978)
	$980,909	Federal Funds
	= $1,154,000	Total Funds

The Beef Bend Road signal was approved in our Six Year Improvement Program for $40,000 (PMS Run shows $75,000), which brings the total money for the entire project to $1,194,000.

The latest cost estimates are $80,000 P.E. and $1,090,000 construction, for a total of $1,170,000, which is within the authorization.

pq

cc Don Adams
Ted Spence
Jim McClure
Bill Pettis
Ron Kleinschmit
Chuck Pietrok
Dave Long

#752

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

April 25, 1979

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM for J. L. Gaither
D. E. Swan
Federal Aid Engineer

SUBJECT Additional IX Funds for PS&E Approval
Item No. 80173
Project No. M-IX-9234(4)
Progress Interchange Off-Ramp
Washington County

We request additional Interstate Substitution General Funds financing for the subject project based on the fact that the PS&E estimate exceeds the funds requested in our March 6 letter. Approval of this request will involve additional estimated total cost of $102,700 and allotment of $87,300 in Federal Funds.

A tabulation of the amounts involved are as follows:

REQUEST	TEC	FF	STATE
Present	$305,100.00	$259,300.00	$45,800.00
Original	202,400.00	172,000.00	30,400.00
Difference	$102,700.00	$ 87,300.00	$15,400.00

JLG:dmc
cc: R. N. Bothman, Metro
Max Klotz, Metro
Jon Rose, Metro
[redacted]

Section Progress Intchge. Off Ramp Programming Estimate $ 493,000 Una.

Highway FAU 9234 (Scholls Hwy.) Project Length 0.34 mi.

County Washington Completion Time a) all work except SIGNS ILLUM TRFC. SIGS in 180 CD

Kind of Work Grading, Paving, and Signals b) All work in 240 CD

Prefix 134 - 1930 FA Project No. M-IX - 9234(4)

ESTIMATED CONSTRUCTION AUTHORIZATION

Estimated Contract Amount		$ 431,749 75
Anticipated Additional Items:		
Royalty Payment		
Building Permit Fees		
Slide Correction		
Railroad Protective Costs		
Other Railroad Costs		
Permanent Signing		
✓ Permanent Pavement Striping	700	
✓ Temporary Pavement Striping	500	
Remove Pavement Striping (Exist. & Temp.)		
✓ Temporary Erosion Control	500	
State Furnished		
Install Water Meter		
Furnish Water		$ 2,900 00
Laboratory Fees		
On the Job Trainees		
State Responsibility for Damages		
✓ Signal Controller Testing	1000	
Bikeway Signs		
Furnish Mail Box Posts		
~~Adjust Utilities~~		
✓ State relocation of Signal Controller	200	
Misc. Permit Fees		
		$ 434,649 75
Contingencies (4-1/2%)		19,559 24
Engineering (9 %)		39,118 48
Credit for	~~SUBTOTAL~~	$
Estimated Net Authorization, Construction		$ 493,327 47

May 24

APPROVED

Road Design Engineer

4-26-79 Notified Maxklote He will check. OK Mark. 4-26-79 Letter

Rec'd 4-24-79 2 #

Fed Funds { I506 172,000 247,250 / FAUS ~~203,000~~ 207,954

Need #52,000

(28) 75,000

OREGON STATE HIGHWAY DIVISION — Sheet 1 of 4

~~SUMMARY - BID SCHEDULE~~ - COST ESTIMATE — Date Apr. 19, '72

Section Progress Intchge. Off Ramp — County Washington

Kind Of Work Grading, Paving, Signals — Length 0.34 Mi. — Name Bricher

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Mobilization (8%)		All	All		32,000-
	Temporary Protection and					
	Direction of Traffic		All	All	-	1,460-
	Temporary Signs		Sq. Ft.	309	6-	1,854-
	Temporary Plastic Safety Markers		Each	41	80-	3,280-
	Temporary Traffic Signal Installation		~~Each~~ All	All *	-	16,500-
	Flagmen		Hour	400	20-	8,000-
	Temporary Illumination		All	All	-	2,000-
	ROADWORK					
	Clearing and Grubbing		All	All	-	3,500-
	Removal of Structures and Obstructions		All	All	-	1,500-
	Ditch Excavation		Cu. Yd.	885	6-	5,310-
	General Excavation		Cu. Yd.	4,675	3 25	15,193 75
	Trench Excavation		Cu. Yd.	440	10-	4,400-
	Finishing Roadbed and Slopes		All	All	-	2,500-
	Watering		M. Gal.	90	10-	900-
	Structure Excavation		Cu. Yd.	50	20-	1,000-
	~~Bituminous Base~~		~~Ton~~	~~1,600~~		
	Aggregate Base		Ton	3,800	7 50	28,500-

OREGON STATE HIGHWAY DIVISION — Sheet 2 of 4

~~SUMMARY—BID SCHEDULE~~—COST ESTIMATE — Date Apr. 19, '74

Section Progress Intchge. Off' Ramp — County Washington

Kind Of Work Grading, Paving, Signals — Length 0.34 mi. — Name Bricher

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Class "B" Asphalt Concrete		Ton	~~1,400~~ 2,800	25⁻	70,000⁻
	Structural Concrete in Wall		Cu.Yd.	40	230⁻	9,200⁻
	Reinforcement in Wall		Lb.	2,600	0 50	1,300⁻
	12-inch Culvert Pipe		Lin.Ft.	64	10 50	672⁻
	21-inch Culvert Pipe		Lin. Ft.	172	16 75	2,881⁻
	8-inch Sewer Pipe		Lin. Ft.	28	9⁻	252⁻
	12-inch Sewer Pipe		Lin. Ft.	132	13 50	1,782⁻
	18-inch Sewer Pipe		Lin. Ft.	348	18 50	6,438⁻
	21-inch Sewer Pipe		Lin. Ft.	60	22⁻	1,320⁻
	Extra for Pipe Under Pavement		Lin. Ft.	140	15⁻	2,100⁻
	Concrete Manholes		Each	1	1,500⁻	1,500⁻
	Concrete Inlets, Type G-2		Each	4	600⁻	2,400⁻
	Concrete Inlets, Type G-2M		Each	4	600⁻	2,400⁻
	Concrete Inlets, Type CG-2 8-inch Drain Pipe		Each Lin. Ft.	2 180	580⁻ 8⁻	1,160⁻ 1,440⁻
	Fiber Filter		Sq. Yd.	150	3 50	525⁻
	Gravel in Drains		Cu.Yd.	15	20⁻	300⁻
	Guard Rail, Type 2A		Lin. Ft.	75	15⁻	1,125⁻
	Guard Rail Anchors, Type 1		Each	1	300⁻	300⁻
	Rail End Pieces, Type C		Each	1	150⁻	150⁻
	Concrete Driveways 4-inch Concrete Surfacing		Sq. Yd Sq. Yd	30 17	27⁻ 20⁻	810⁻ 340⁻
	Concrete Curbs		Lin. Ft.	1,040	4 50	4,680⁻
	Extra for Asphalt Approaches		Each	6	200⁻	1,200⁻

OREGON STATE HIGHWAY DIVISION — Sheet 3 of 4

~~SUMMARY--BID SCHEDULE~~--COST ESTIMATE — Date April 19, '79

Section Progress Intchge. Off Ramp — County Washington

Kind Of Work Grading, Paving, Signals — Length 0.34 mi. — Name Bricher

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Concrete Barrier		Lin. Ft.	888	20.-	17,760.-
	Plastic Glare Shield Blades		Each	250	25.-	6,250.-
	Reflectors		Each	40	8.-	320.-
	Roadside Seeding and Mulching		Acre	1	1,000.-	1,000.-
	SIGNING					
	Removal of Existing Sign Installations		All	All	-	500.-
	Wood Sign Posts		All	All	-	720.-
	Sign Support Footings		All	All	-	7,050.-
	Breakaway Sign Posts		All	All	-	1,510.-
	Single Post Breakaway Sign Supports		All	All	-	378.-
	Cantilever Sign Structures		All	All	-	13,320.-
	Signal Pole Sign Mounts		All	All	-	910.-
	Type "A" Signs in Place		Sq. Ft.	400	18.-	7,200.-
	Type "C", "D" and "R" Signs in Place		Sq. Ft.	71	9.-	639.-
	Type "EE" Signs in Place		Sq. Ft.	50	11.-	550.-
	Type "I" and "U" Signs in Place		Sq. Ft.	20	13.50	270.-
	Move and Modify Existing Signs		All	All	-	1,800.-
	Sign Illumination Equipment		All	All	-	3,300.-
	Thermoplastic Pavement Arrows		Each	2	150.-	300.-

OREGON STATE HIGHWAY DIVISION Sheet 4 of 4

~~SUMMARY BID SCHEDULE~~--COST ESTIMATE Date April 19, '79

ection Progress Intchge. Off Ramp County Wash.

ind Of Work Grading, Paving and Signals Length 0.34 mi Name Bricher

Item	Code	Unit	Quant.	Unit Cost	Total
ILLUMINATION					
Pole Foundations		All	All	-	2,400-
Roadway Lighting Poles					
and Bracket Arms		All	All	-	7,500-
Luminaires and Ballasts		All	All	-	2,400-
Switching, Conduit, Wiring,					
Lamps, Etc.		All	All	-	13,700-
TRAFFIC SIGNALS					
Traffic Signal Installation,					
Complete		All	All	-	99,800-

8952

WASHINGTON COUNTY

Inter--Department Correspondence

Date April 5, 1979
For Meeting of: April 10, 1979

To : Honorable Board of County Commissioners

From : Director of Public Works

Subject : Highway 217 Progress Off-Ramp Construction

As you know, this project has been for the last several years travelling through the process of being funded through Federal Aid funds which are administered through CRAG, now MSD. It is now ready for the construction phase.

You may also recall that during the course of developing the project, the county agreed to take over the new frontage road that will be constructed as a part of this project. The frontage road serves those industrial properties lying between Highway 217 and the Southern Pacific Railway line in the Progress area.

The agreement being presented here has been reviewed by County Counsel and approved as to form. It does agree in principle to those which were arrived at previously and approved by your Board at the time of project application.

RECOMMENDATION: Your Board authorize the Chairman to execute the prepared agreement between Washington County and the State. The construction is being done at no cost to the county.

Respectfully submitted,

John F. Crockett

JFC:pj

APPROVED WASHINGTON COUNTY
BOARD OF COMMISSIONERS
MINUTE ORDER # 79-184
DATE 4-10-79
BY Jo Ann Johansen
CLERK OF THE BOARD

13452

April 4, 1979

The Honorable Victor Atiyeh
Governor of Oregon
207 State Capitol
Salem, Oregon 97310

Dear Governor Atiyeh:

Substitute Transportation Projects Using Withdrawn Interstate Funds

Your letter of February 2 requested that I keep you informed as to the projects considered to use withdrawn Interstate Funds.

The following projects in the Portland urbanized area were submitted to the Federal Highway Administration during the month of March:

Project	Funds Federal	State	Local
Merle U'Xing-Cedar Hills (Sunset Hwy.-Overlays)	$2,550,000	$450,000	$ --
Progress Interchange Off-Ramp	172,000	30,400	--
Lawnfield Rd.-Clackamas Hwy.	458,000	48,540	32,360
Cedar Hills Blvd. @ Walker Rd. (Beaverton)	72,000	---	10,800
S.W. Murray Blvd.-S.W. Walker Rd. (Beaverton)	332,000	---	49,800
Tualatin Valley Hwy.-S.W. Scholls Ferry Rd., (Beaverton)	277,000	---	41,550

The criteria used to select these projects is the Region's Transportation planning process which embodies a continuing cooperative, comprehensive approach. The projects are included in the Region's Transportation Improvement Program.

There were no projects submitted for the Salem urbanized area for the month of March.

GLG:dmc fn
bc H. S. Coulter
L. W. Rulien
D. H. Moehring
R. N. Bothman

Sincerely,

F. B. Klaboe
Director of Transportation

8952

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

SUBJECT: Oregon Project M-9234(1)
Progress Interchange Offramp
Scholl's Highway
Washington County

DATE: April 2, 1979

In reply refer to: HFO.1-OR

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer, ODOT

Your recent request for additional preliminary engineering funds for thw subject project has been reviewed. Based on the information submitted, we are unable to approve your request.

This office is becoming increasingly concerned with the relatively high preliminary engineering costs being incurred on projects developed by the Metro section. It would appear that a complete and comprehensive review of the processes and procedures being followed in the development of these projects is necessary in order to determine and correct the reasons for such high costs.

Since part of the problem may be the result of a misunderstanding of what FHWA requirements are, personnel from this office are available to assist in any way possible.

G. L. Green

cc:
E.S. Hunter (OSHD)

RECEIVED
STATE HWY ENGR
APR 5 '79
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

4/11 ltr

8952

Form 734-3106

3-77

Job No. . . . . .

Sheet ..... of ..... Sheets

OREGON STATE HIGHWAY DIVISION

Calculations for . . . . . .

Made by ..... 19..... Checked by . . . . . , 19. ..... Backchecked by . . . . . , 19.....

PROGRESS INTERCHANGE OFF-RAMP TO SCHOLLS FERRY ROAD IX-M-9234 (1)(2)(4)

			TOTAL COST	FED. FUNDS	MATCH
FAN FUNDS W.36	PE	M-9234(1)	$52,983.00	$45,212.72	7,770.28
	R/W	M-9234(2)	123,540.49	94,225.93	29,314.56
	CONST.	IX-M-9234(4)	197,385.16	172,492.80	24,892.36
(823)	"	(IX FUNDS)	347,445.71	295,276.10	52,169.61
	SUB-TOTALS	(M)	373,908.65	311,931.45	61,977.20
	"	(IX)	347,445.71	295,276.10	52,169.61
	TOTAL		$721,354.36	$607,207.55	$114,146.81

State Match

9-52

144

STATE OF OREGON

INTEROFFICE MEMO

ODOT - METRO
DEPT.

238-8226
TELEPHONE

TO: T.A. Spence
Policy and Planning Coordinator

DATE: March 27, 1979

FROM: D.R. Adams
Project Development Manager

SUBJECT: Progress Interchange Off-Ramp
Cost Overrun

The Salem Design Section has made a new estimate of cost for the subject project. Cost estimate has escalated from $420,000 to $505,000.

The $83,000 increase is attributed to several factors, i.e. $31,000 increase cost of traffic signals, $11,000 increase in cost of permanent signing, the cost of inflation, additional costs of $6,500 for temporary traffic signals and approximately $5,000 in additional cost increases. These are the identifiable engineering costs that have substantially increased. Other costs can be attributed to inflation of unit bid prices and the usual additives for engineering and contingencies that go into making up the estimate in this phase of project development.

I suggest that you seek an additional $85,000 for construction of this project. We have already downscoped the design on the project and feel that further downscoping should not be undertaken. Only narrowing the roadways would affect any substantial reduction in cost. The frontage road to be turned over to Washington County is already at minimum standards and the off-ramp is designed to the standards consistent with the other interchange ramps on Highway 217.

I have been advised by Design (Lyle Watson) that the $505,000 estimate is good and should hold through the contract bid letting process. I recommend, that you seek $505,000 total authorization by asking for an increase of $85,000 over the current funding. The contract is scheduled for May 24 bid letting, response is needed by mid-April.

DRA/PE

cc: Ed Hardt
Bud George
Jack Sullivan
[redacted]

REFERRED: Klotz
Beard, Stoudenmayer, Cole, Sample, Eriksen, Watson, Hager, Dorn, Leu
Return, Discuss, Do, File Copy, Due
By FINAL DESIGN ENGINEER

Versteeg, Anderson, Christenson, Olson, Sullivan, Terpin, Trout, Wakerlig

RECEIVED
MAR 28 1979
ROAD DESIGN SECTION

Do Not File
Return To
Bring Up
Action

8952 143

Salem, Oregon
March 22, 1979

Duane O. Christensen
Final Design Engineer

Don Adams, Metro
Project Development Manager

Progress Interchange
Off Ramp
FAU 9234 (Scholls Highway)
Washington County

The estimate of costs for the subject section is $503,000. The following items have increased since the last estimate.

Item	Original Estimate	Revised Estimate	Change
Mobilization	$27,195	$30,840	$ 3,645 +
Temporary Signs	8,000	6,600	1,400 -
Permanent Signing	28,000	38,500	10,500 +
Permanent Illumination	23,000	24,000	1,000 +
Traffic Signals	70,000	100,800	30,800 +
Temporary Signal	10,000	16,500	6,500 +
Service Connection, Temporary (SFP)	-0-	2,000	2,000 +

Vanstang ✓
Anderson
Gen. Chrisensen
Olson
Sullivan
Terpin
Trout
Wiberg

RECEIVED
MAR 23 1979
ROAD DESIGN
SECTION

Downscope Estimate

OREGON STATE HIGHWAY DIVISION
QUANTITY SUMMARY & COST ESTIMATE

Price Update by Sanford 2-23-79 Sheet 1 of 4 Sheets

Section Progress Intchge. Off Ramp
Highway Scholls County Washn. Prefix 134-1930
Length ____ Miles ____ Designer McGill Date 2-16-79
Signed ____ Title ____

Grading & Drainage $ ____
Surfacing $ 417,427 367,127

Extra Work

Service Connection	$ 2,000
	$
	$
	$
	$
	$
	$
	$
	$
	$

TOTAL EXTRA WORK $ 2,000

TOTAL . . . . . $ 419,427

+20% Engineering and Contingencies $ 83,885 73,425

Structures

	$
	$
	$
	$

TOTAL STRUCTURES $ ____

Right of Way $ ____

TOTAL ESTIMATED COST . . . . . $ 503,312 440,552

OREGON STATE HIGHWAY DIVISION
SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 2 of 4
Date 2-16-79

Section Progress Intchange Off Ramp County Wash.

Kind Of Work _____ Length _____ Name McGill

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Mobilization 8%		All	—	—	920 ~~2,195~~
	Temp. Protec. & Direc. of Traffic		All	—	—	
	Temporary Signs		Sq. Ft.			6600 ~~8000~~
	Temporary Barricades		Each			
	Temporary Plastic Safety Markers		Each			
	Flagmen		Hours	400	19.00	7600
	Roadwork					
	Clearing & Grubbing		All	—	—	3500
	Removal of Struc. & Obstruc.		All	—	—	1500
	Ditch Excavation		C.Y.	885	6.00	5310
	General Excavation		C.Y.	4672	3.25	15,184
	Trench Excavation		C.Y.	418	10.00	4180
	Finishing Roadbed & Slopes		All	—	—	2500
	Watering		M-Gal.	92	10.00	920
	Structure Excavation		C.Y.	33	20.00	660
	Aggregate Base		Ton	3904	7.50	29,380
	Plant Mix Bituminous Base		Ton	1650	13.50 14.00	22,27. ~~23,100~~
	Asphalt in Bituminous Base Mix.		Ton	91	94.00	8554
	Class "B" Asph. Conc. Mix.		Ton	1449	13.50	19,562
	Asphalt Cement in "B" Mix.		Ton	94	94.00	8836
	Asphalt in Tack Coat		Ton	1	500.00	500
	P C C		C.Y.	12	—.00	

OREGON STATE HIGHWAY DIVISION
SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 3 of 4
Date 2-16-79

Section Progress Intchange Off Ramp County Wash.

Kind Of Work _____ Length _____ Name McGill

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Class 3300-1½ Conc. In Wall		C.Y.	40	230.00	9200
	Reinforcement In Wall		Lbs.	2200	0.50	1100
	12-inch Culvert Pipe		Lin.Ft.	64	9.00	576
	21-inch Culvert Pipe		Lin.Ft.	60	13.00	780
	8-inch Sewer Pipe		Lin.Ft.	28	10.00	280
	12-inch Sewer Pipe		Lin.Ft.	132	12.00	1584
	18-inch Sewer Pipe		Lin.Ft.	348	17.00	5916
	21-inch Sewer Pipe		Lin.Ft.	172	20.00	3440
	Extra For Pipe Under Pavement		Lin.Ft.	140	12.00	1680
	Concrete Manhole		Each	1	1500.00	1500
	Concrete Inlets, Type "G-2"		Each	6	550.00	3300
	Concrete Inlets, Type "G-2M"		Each	4	550.00	2200
	8-inch Drain Pipe		Lin.Ft.	180	6.00	1080
	Fiber Filter		Sq.Yds.	150	4.00	600
	Gravel In Drains		C.Y.	15	20.00	300
	Guard Rail, Type 2A		Lin.Ft.	75	15.00	1125
	Guard Rail Anchor, Type 1		Each	1	300.00	300
	Rail End Piece, Type C		Each	1	125.00	125
	Concrete Barrier		Lin.Ft.	887.5	20.00	17,750
	Concrete Driveway		Sq.Yd.	30	20.00	600
	Concrete Curbs, Type C		Lin.Ft.	1040	3.75	3900
						57336

OREGON STATE HIGHWAY DIVISION
SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 4 of 4
Date 2-16-79

Section Progress Intchge. Off Ramp County Wash.

Kind Of Work _____ Length _____ Name McGill

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Extra For Asphalt Approaches		Each	6	175.00	1050
	Plastic Glare Shield Blades		Each	250	20.00	5000
	Reflectors		Each	40	8.00	320
	Signing					
	Signs		All	—	—	~~28,000~~ 30,700
	Illumination					
	Permanent Illumination		All	—	—	~~23,000~~ 24,000
	Temporary Illumination		All	—	—	500
	Signals					
	Traffic Signal Installation		All	—	—	~~70,000~~ 100,500
	Temporary Signal		All	—	—	~~10,000~~ 16,500
	Landscape					
	Seeding & Mulching		All	—	—	600

1A 2,970; 2,270; 700

8952

3-16-79

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
2,2A	Typical Sections
2B, 2C, 2D, 2E	Details
2F, 2F-2, 2F-3	Stage Construction, Temporary Protection & Direction Of Traffic
2G	Pipe Data
2I	Signing (Not Incl.)
2J	Details & Summary
3, 3A	Plan & Construction Notes
3B, 3C	Profiles

Temp Prot & Direction of Traffic Not Included

STATE OF

DEPARTMENT OF T

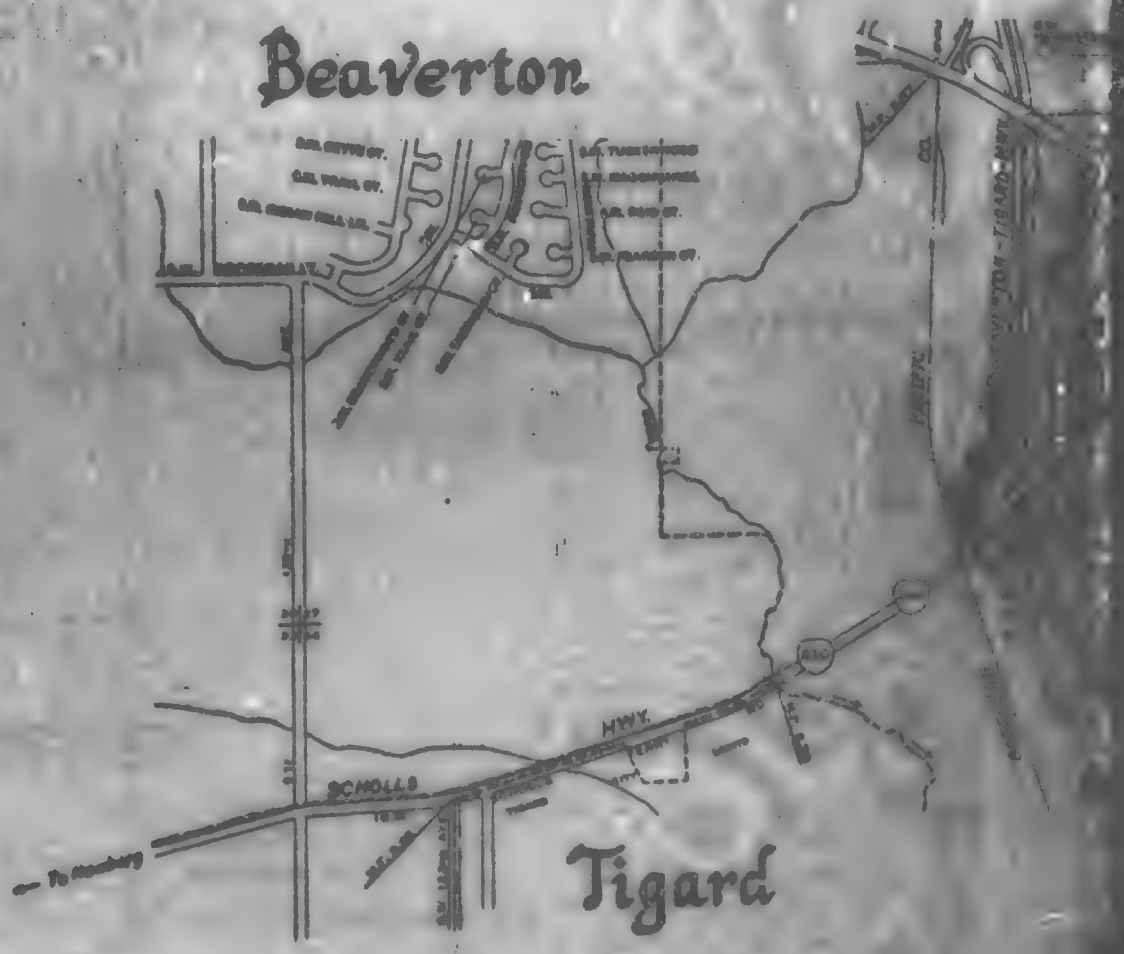
STATE HIGHV

PLANS FOR PRO

PROGRESS INTC

FAU 9234 (SC

WASHINGTO



1979

CHAIRMAN

MAR 1 1979

FILE 1/A

Hildebrand

ATE OF OREGON
NT OF TRANSPORTATION
HIGHWAY DIVISION
FOR PROPOSED PROJECT

PRELIMINARY COPY
FEB 28 1979
SUBJECT TO CHANGE
FINAL DESIGN UNIT

AS REVISED

PROGRESS INTCHGE. OFF RAMP FAU 9234 (SCHOLLS HWY.) WASHINGTON COUNTY				SHEET No. 1
FED. ROAD Div. No.	STATE	PROJECT NUMBER	FISCAL YEAR	TOTAL SHEETS
10	OREGON			See Index

S INTCHGE. OFF RAMP
9234 SCHOLLS HWY.)
WASHINGTON COUNTY

PRELIMINARY COPY
SUBJECT TO CHANGE

REGISTERED PROFESSIONAL ENGINEER — OREGON — OCT. 20, 1960 — H. S. COULTER

H. S. Coulter STATE HIGHWAY ENGINEER

E. S. Hunter ASSISTANT STATE HIGHWAY ENGINEER

Scale 1" = 1400 Feet

OREGON TRANSPORTATION COMMISSION

Glenn L. Jackson	CHAIRMAN
Michael P. Hollern	VICE CHAIRMAN
Gordon Coleman	COMMISSIONER
Peter J. Brix	COMMISSIONER
Tom Walsh	COMMISSIONER
Fred B. Klaboe	DIRECTOR OF TRANSPORTATION

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ENGINEER — DATE

Hillsboro -

REGON

ANSPORTATION

Y DIVISION

ED PROJECT

GE. OFF RAMP

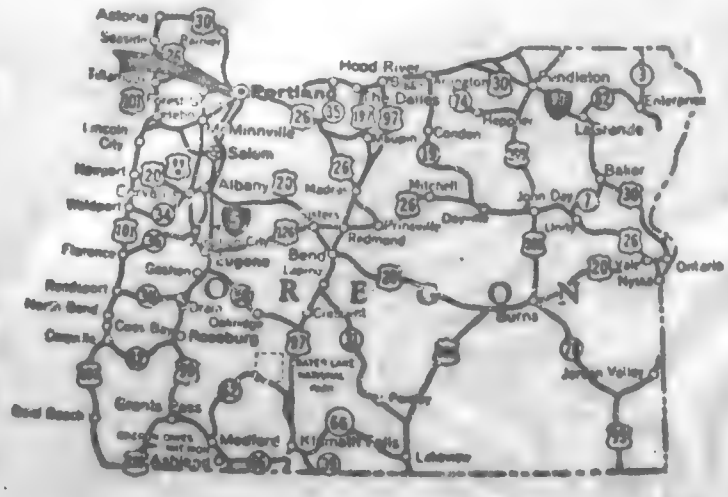
LLS HWY.)

OUNTY

PRELIMINARY COPY
FEB 20 1979
SUBJECT TO CHANGE
FINAL DESIGN UNIT

AS REVISED

PROGRESS INTCHGE. OFF RAMP FAU 9234 (SCHOLLS HWY.) WASHINGTON COUNTY				SHEET No. 1
FED. ROAD Div. No.	STATE	PROJECT NUMBER	FISCAL YEAR	TOTAL SHEETS
10	OREGON			See Index



PRELIMINARY COPY
SUBJECT TO CHANGE

PROJECT
Sta. "SFB" 37+32

REGISTERED PROFESSIONAL ENGINEER 4075 OREGON OCT. 20, 1978 H. S. COULTER

REGISTERED PROFESSIONAL ENGINEER 6884 OREGON NOV 13, 1968 EDGAR S. HUNTER

H. S. Coulter — STATE HIGHWAY ENGINEER

E. S. Hunter — ASSISTANT STATE HIGHWAY ENGINEER

OREGON TRANSPORTATION COMMISSION

Glenn L. Jackson	CHAIRMAN
Michael P. Hollern	VICE CHAIRMAN
Gordon Coleman	COMMISSIONER
Peter J. Brix	COMMISSIONER
Tom Walsh	COMMISSIONER
Fred B. Klaboe	DIRECTOR OF TRANSPORTATION

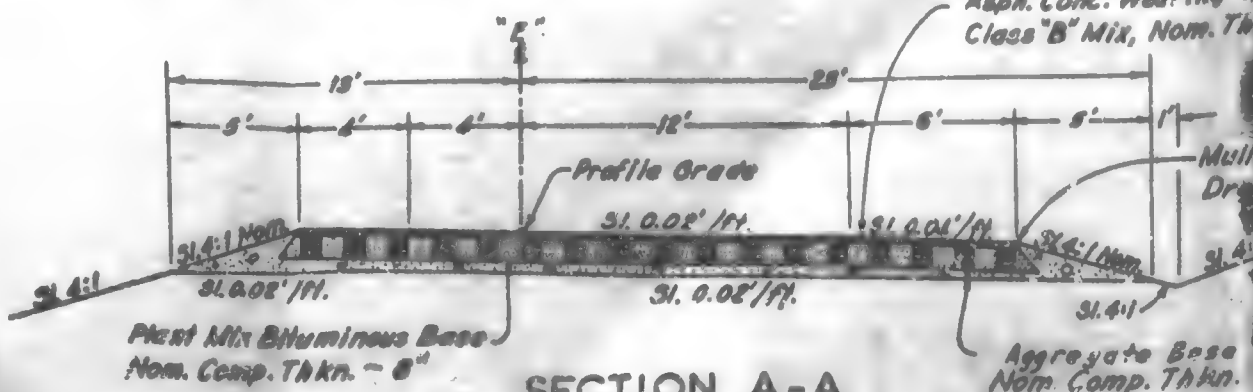
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

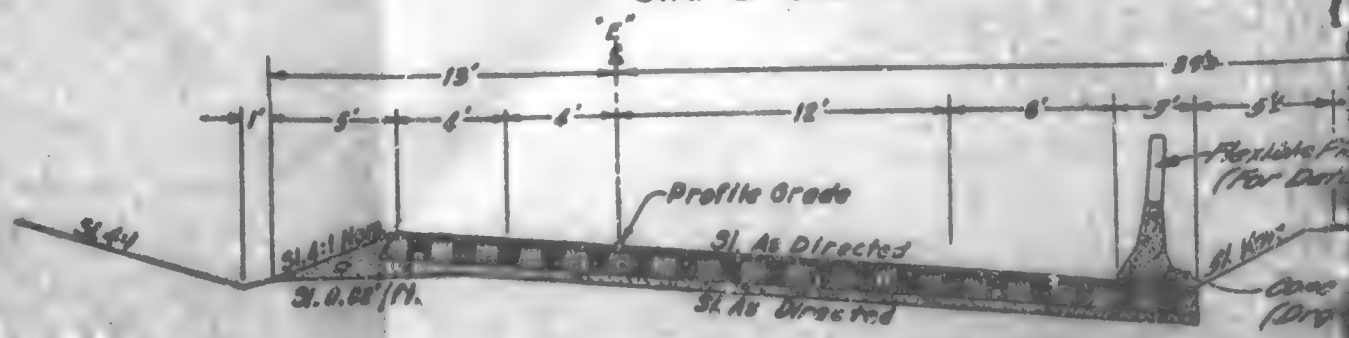
DIVISION ENGINEER — DATE

R/W Map 80-20-6

TYPICAL SE



SECTION A-A
STA. "E" 315+10



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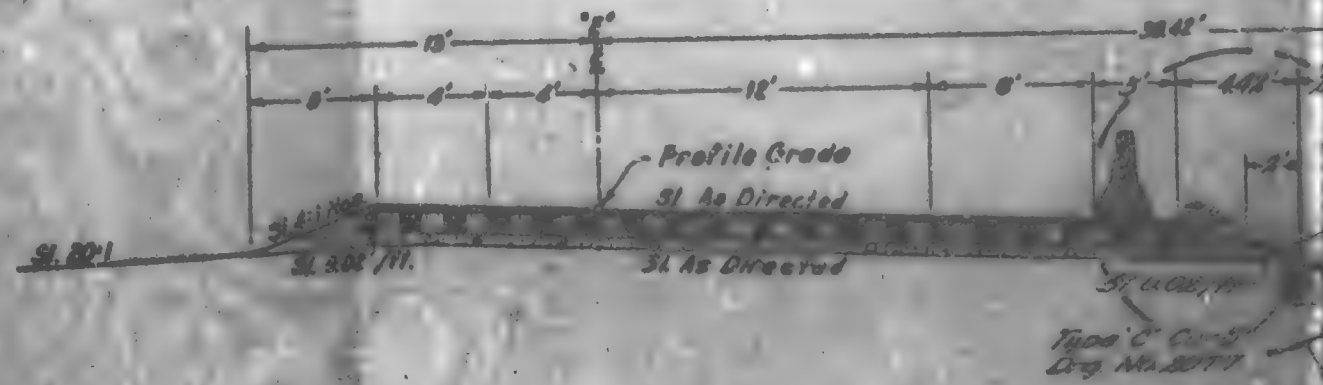
SECTION B
STA. "E" 316+4



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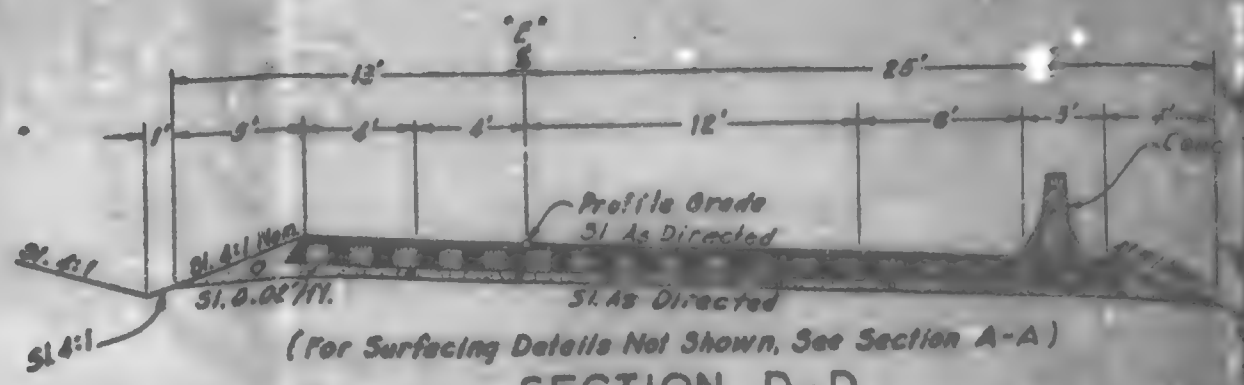
SECTION C
STA. "E" 321+



(For Surfacing Details Not Shown, See Section A-A)

SECTION D-D
STA. "E" 322+35

Watson, McGill, Butts

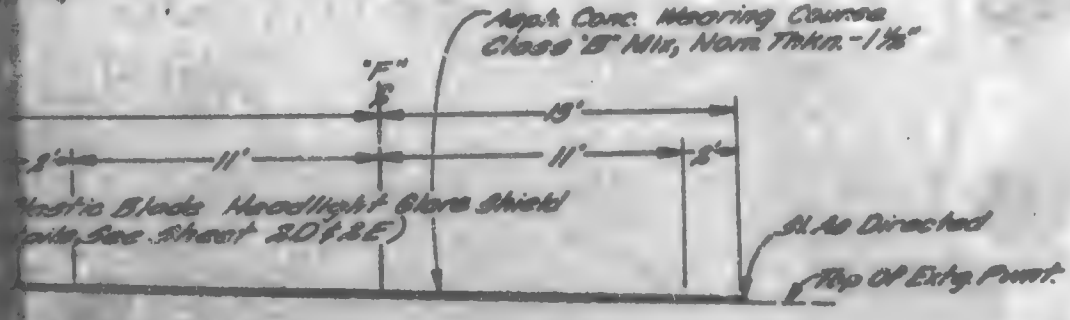
E C T I O N S

PROGRESS INTCHGE. OFF RAMP FAU 9234 (SCHOLLS HWY.) WASHINGTON COUNTY				SHEET No. 2
FED. ROAD Div. No.	STATE	PROJECT NUMBER	FISCAL YEAR	TOTAL SHEETS
10	OREGON			See Index

Wearing Course
s, Nom. Thkn.-2"

uilt-Layer Pvmt. Const.
g. No. 2050

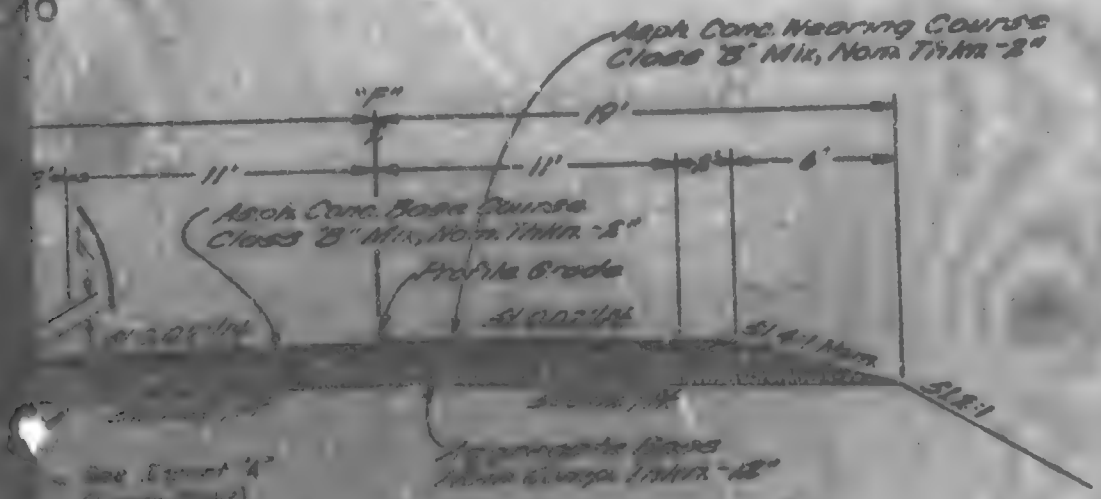
-4"



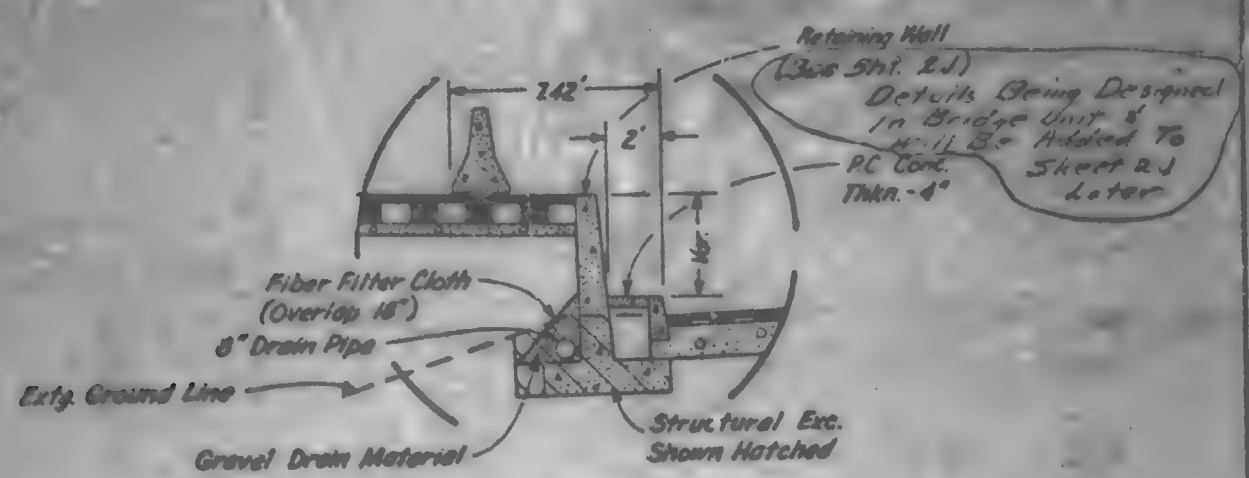
Shldr Barrier
No. 2127)

e Section A-A)

ON L-B
3 10



Sec A-A & B-B)



INSERT "A"

STA. "F" 34+90 To STA. "F" 35+90

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

March 7, 1979

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM D. E. Swan Original Signed By D. E. Swan
Federal Aid Manager

SUBJECT Project Data Submission
Item No. 80173
Project No. M-IX-9234(4)
Progress Interchange Off-Ramp
Washington County

Attached support data consists of PR-1 forms and project maps for the subject joint funded project.

It is the Oregon State Highway Division's present intention to receive bids for this project on May 24, 1979.

We request transfer of Interstate Substitution General Funds for a portion of the construction of the subject project, as we intend to request PS&E authorization May 2, 1979. This action will involve an estimated total cost of $202,400 with substitution funds in the amount of $172,000.

This request is based on the March 6, 1979 letter to you from Mr. F. B. Klaboe, Director of the Department of Transportation.

A copy of the State Clearinghouse A-95 review letter of approval was previously forwarded.

JLG:dmc
Attachments
cc: R. N. Bothman, Metro
Max Klotz, Metro
Jon Rose, Metro
Ed Hardt, Region 1
[redacted], w/att.

Budget Bureau No. 41-R20

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

March 7, 1979

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

CARD	REPORT NUMBER (19)(20)	PROJECT LOCATION (45 typewriter spaces) 21 65		PRESENT	FUTURE (66)	YEAR (70)(71)(72)	REGION	STATE NAME
CARD 2		SR 210, 0.5 mi. SW of Progress	ADT	*	2,900	99	10	Oregon

CARD	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28 62	NATL. FOREST (63)(68)	FH ROUTE NO. (69)(80)	SUPV AGCY (81)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)(73)	PL. AUTH YR (74)(75)	PROJECT NUMBER PREFIX LETTER(S) 14 23	NUMBER 7
CARD 3	Gr., Dr., H.T. Pave, Traf. Sig.								M-IX-	9234

CARD	CLASS OF FEDERAL FUNDS	COUNTY NAME			
CARD 4	Urban System & Interstate Substitutions General Funded	Washington			
	NAME OF URBAN AREA 17-31	ROUTE NO.	FEDERAL-AID (32)	STATE (36)(37)	U.S.
	Portland	U	9234	143	---

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE 43 46	STEP 53	TERMINI (Full description)	MILES (54)(58)	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST (59)(66)	FEDERAL FUNDS (67)(76)	STATE FUNDS	OTHER FUNDS
1	(14-18)	(10)	41	42								
5					PE							
5					ROW		"Progress Interchange Off-Ramp"					
5					CONST (CODE) Y008		(88.1%) "M"	0.0	221,300	195,000	26,300 ~~13,150~~	~~13,150~~
5					Y031		(85%) "IX"	0.0	202,400	172,000	30,400 ~~18,240~~	~~12,160~~
							PROJECT TOTALS	0.0	423,700	367,000	56,700 ~~31,390~~	~~25,310~~

CARD 1	CODE 1	PREPARED BY	JLG
1	14	PROGRAM APPROVAL DATES	2-24-78

(10) (23)(24) (33) REMARKS

Additional Data: Item
Project Nos. M-9234(1)

* No existing facility

FORM PR-1 (REV. 4-61)

Budget Bureau No. 41-R2067; Approval Expires Febru...

U.S. DEPARTMENT OF ...
BUREAU OF ...

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

March 7, 1979

PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
210, 0.5 mi. SW of Progress	ADT	*	2,900	99	10	Oregon	41	W36 823	80173

TYPE OF WORK (35 typewriter)	NATL. FOREST	FH ROUTE NO.	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST MI.	DESIG.
Pave, Traf. Sig.								M-IX-	9234	(4)		

Interstate Substitutions General Funded

COUNTY NAME: Washington — CODE: 067

ROUTE NO.: U — FEDERAL-AID: 9234 — STATE: 143 — U.S.: ---

PROGRAM STAGE: ☐ 1 OR ☐ 2

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
E								Util. adj. as req.
ROW		"Progress Interchange Off-Ramp"						
CONST (CODE) Y008 Y031		(88.1%) "M"	0.0	221,300	195,000	26,300 ~~13,150~~	~~13,150~~	ROW-200' normal; Access Control-full; Parking Restrictions-Complete
		(85%) "IX"	0.0	202,400	172,000	30,400 ~~18,240~~	~~12,160~~	
JLG		PROJECT TOTALS	0.0	423,700	367,000	56,700 ~~31,390~~	~~25,310~~	

APPROVAL DATES: 2-24-78

* No existing facility

REMARKS: Additional Data: Item Nos. 71436 & 80173; Project Nos. M-9234(1) & (2) respectively.

Over

USCOMM DUSCOMM-DC 48808-P81

Progress Interchange Off-Ramp
Project No. M-IX-9234(4)

Remarks-continued

This project is jointly financed using Urban System and Interstate Substitutions General Funded funds. Based on money value of which Urban System funds is firm, any additional cost over and above will be financed with Interstate Substitutions General Funded funds.

Project Data: The work consists of grade, drain high-type pave a 16-foot southbound off-ramp from the Beaverton-Tigard Hwy. to the Scholls Highway (FAU 9234), construct 24-foot footage road, install traffic signal and accomplish incidental work common to this type of project. Adjust utilities as required.

Note: 1) On-the-job trainees, as set forth in FHWA order interim 7-2(2), on this project will be determined at PS&E stage and the number stipulated in the PS&E documents.

2) Included in CRAG FY '79 TIP/AE on page 48 line 126 and MSD Council resolutions 79-24 and 79-25.

1952

Victor Atiyeh

March 6, 1979

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: F. B. Klaboe, Director
Department of Transportation

SUBJECT: Interstate Transfer Funded Project
Portland Urban Area

Under authority granted to me on February 2, 1979 by Governor Atiyeh, I request your approval to use Interstate Transfer Funds for a portion of one joint-funded highway project in the Portland Urban Area. A portion of the funds for this project are available from the withdrawal of the Mt. Hood Freeway from the Interstate Highway System under Section 103(e)(4) of Title 23, U.S.C.

I concur that this is a regional priority and has been developed in conformance with the Region's continuing, cooperative, comprehensive transportation planning process.

Interstate Transfer portion of funding will be matched as follows:

			Funds		
			Federal	State	Local
Progress Interchange Off-Ramp		Constr.	$172,800	$18,200	$12,160

The remaining portion of the project will be financed with Federal Aid Urban System funds through normal procedures.

I have directed the Project Management Branch of the Highway Division to process this request with your office to obligate these funds as they are authorized by the Metropolitan Service District.

cc: Metropolitan Service District

bc: D. H. Moehring
H. S. Coulter

JLG:dmc jv

8752

143

STATE OF OREGON

INTEROFFICE MEMO

METRO TECHNICAL SERVICES DEPT. 238-8231 TELEPHONE

TO: DUANE O. CHRISTENSEN
Final Design Engineer

DATE: January 30, 1979

FROM: MAX J. KLOTZ
Metro Technical Services

SUBJECT: Progress Interchange Off-ramp
FAU 9234-Scholls Highway
Washington County
Prefix 134-1930

We have reviewed the downscoped design prepared in your office for the subject project and for the most part we agree with it.

Here are our preferences on an item by item list:

Cascade Blvd. - Use your downscoped design (30' top)

"F" line (Frontage Road) - Use your downscoped design (26' top) except add a 1½" overlay to the portions of the road not reconstructed.

"E" line (Ramp) - Use full width design (26' top) not downscoped, use plant mix Bit. base.

Permanent Illumination - Prefer not cutting all permanent illumination out. Recommend four along Scholls Ferry Rd. arranged to cover the connecting and two (or possibly three) on the "E" line (off ramp) where the ramp takes off from the Beaverton-Tigard Highway.

Signals - No change.

Wall, drainage, etc. - As necessary to fit the above.

Your plans, sketches, etc. are returned.

REFERRED TO
Beard, Stoudenmeyer, Cole, Sample, Erikson, Watson LW, Hager, Dorn, Lau
Return, Discuss, Do, File Copy, Dup.
BY FINAL DESIGN ENGINEER
Get Br. Infor. for Illum. design & wall. Coordinate with Traffic DOC

js

cc: Ed Hardt
Don Adams
Ken Limbocker
Rob Cameron

c.c. L.L. Wallace w/ Rev Illumination plans. LW.

RECEIVED
JAN 3 1 1979
ENGINEERING SECTION

Vernieg, Christensen DOC, George, Olson, Temple, Sullivan, Scott, Anderson, Trout

Do Not File ☐
Return To
Bring Up ___/___/___
Action

8952 144

STATE OF OREGON

INTEROFFICE MEMO

ODOT - Traffic (DEPT.) 378-6537 (TELEPHONE)

TO: D. O. Christensen ATTN: Lyle Watson
Final Design Engineer

DATE: January 25, 1979

FROM: L. E. George
Traffic Engineer

SUBJECT: Signing
Progress Interchange Off-ramp Section
Beaverton-Tigard Highway
Washington County

Several revisions have been made on the above sign study plans at the request of the Signal Engineer. The revisions are shown on the attached two prints and are marked by the January 22, 1979 revision note.

L. E. George
Traffic Engineer

ELS:cs

Attachments

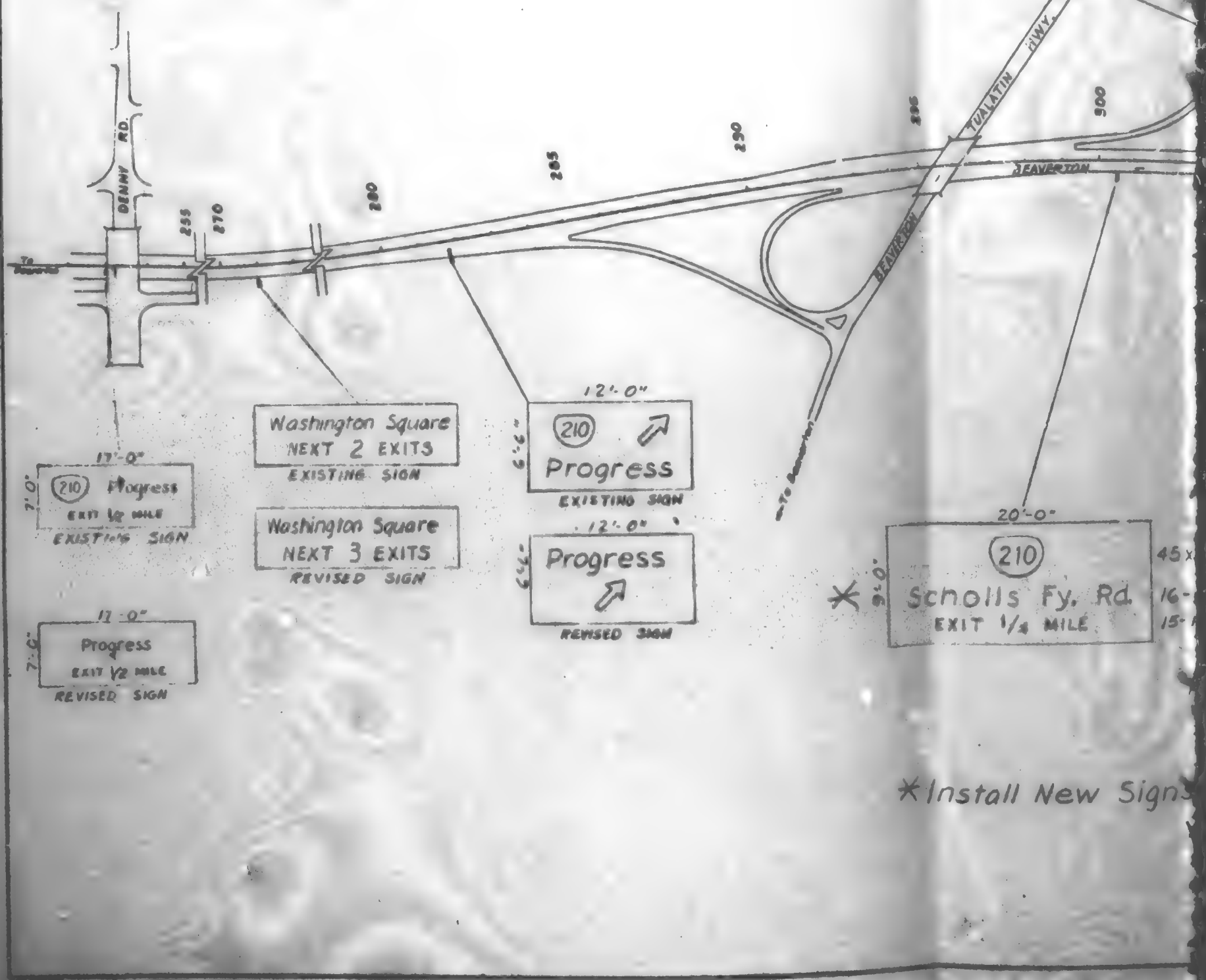
cc: R. N. Bothman
E. L. Hardt
F. T. Lacey

REFERRED TO
Beard ✓ Staudenmeyer
Cole Sample
Eriksen ✓ Watson
Heger Dorn Lou
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER
1 Print retained by Beard

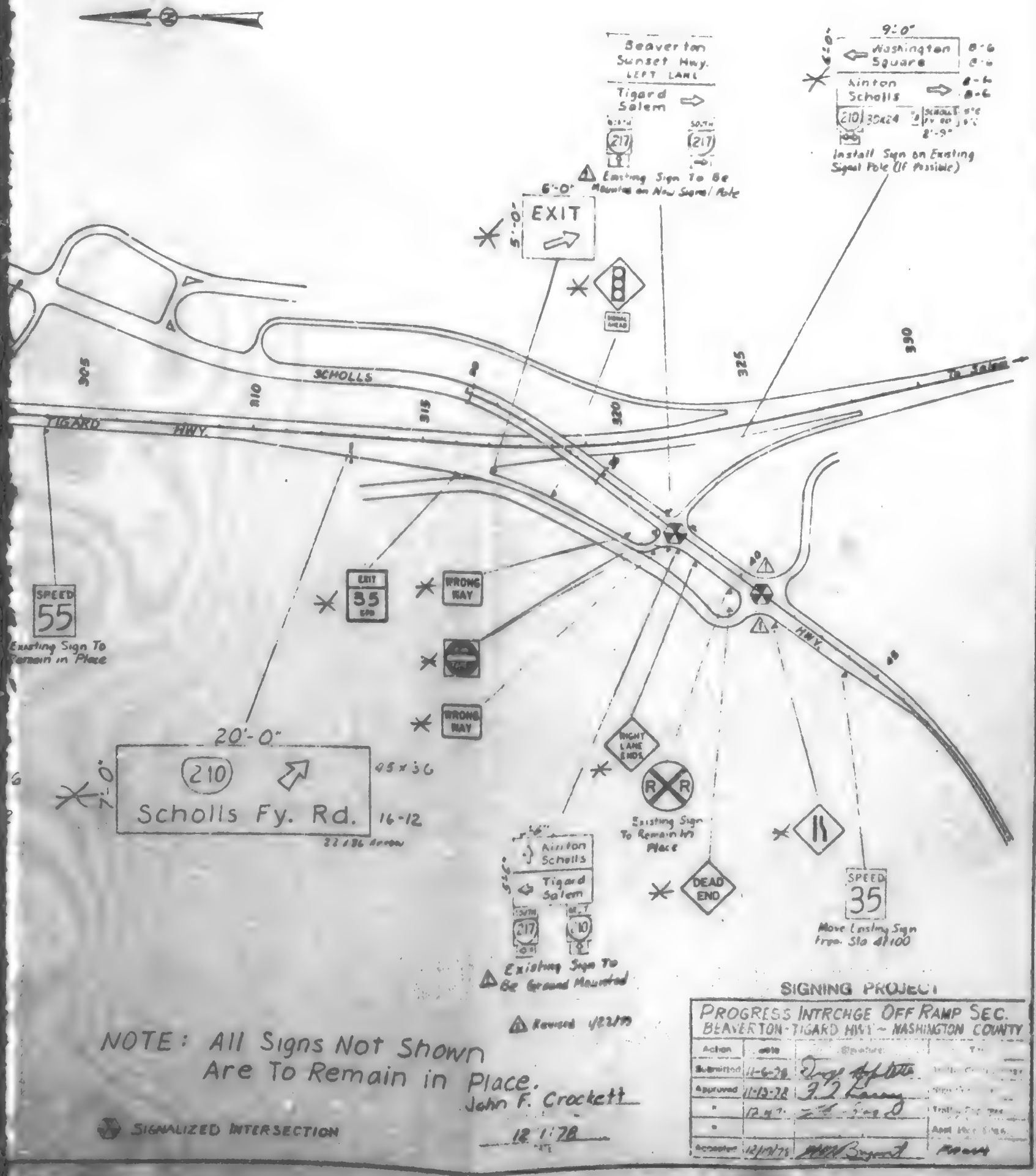
Verstoeg
Christensen
George
Olsen
Terpin
Sullivan
Scott
Anderson

RECEIVED
JAN 26 1979
ENGINEERING SECTION

Trout
Do Not File
Return To
Bring Up ___/___/___
Action


DENNY RD.
235
270
280
285
290
295
300
TUALATIN
BEAVERTON
BEAVERTON
To Tigard
To Beaverton
Washington Square
NEXT 2 EXITS
EXISTING SIGN
12'-0"
6'-6"
210
Progress
EXISTING SIGN
17'-0"
7'-0"
210
Progress
EXIT ½ MILE
EXISTING SIGN
Washington Square
NEXT 3 EXITS
REVISED SIGN
12'-0"
6'-6"
Progress
REVISED SIGN
17'-0"
7'-6"
Progress
EXIT ½ MILE
REVISED SIGN
20'-0"
9'-0"
210
Scholls Fy. Rd.
EXIT ¼ MILE
45
16-
15-
*Install New Sign

Beaverton Sunset Hwy. LEFT LANE
Tigard Salem
(217) (217)
Existing Sign To Be Mounted on New Steel Pole
6'-0"
5'-0"
EXIT
SCHOLLS
TIGARD HWY
305
310
315
320
325
SPEED 55
Existing Sign To Remain in Place
EXIT 35 MPH
WRONG WAY
WRONG WAY
20'-0"
7'-0"
210
Scholls Fy. Rd.
45x36
16-12
22 x 36 Arrow
45x36
16-12
15-10
RIGHT LANE ENDS
R R
Existing Sign To Remain in Place
DEAD END
Hilton Scholls
Tigard Salem
(217) (10)
Existing Sign To Be Ground Mounted
Revised 1/22/79
NOTE: All Signs Not Shown Are To Remain in Place.
John F. Crockett
12/1/78
SIGNALIZED INTERSECTION
PROGRESS INTRO
BEAVERTON-TIGARD
Action | date
Submitted 1-2-79
Approved 1-12-79
12-5
Accepted 12/19/79



NOTE: All Signs Not Shown Are To Remain in Place.

John F. Crockett

12/1/78

SIGNALIZED INTERSECTION

Revised 1/22/79

SIGNING PROJECT

PROGRESS INTRCHGE OFF RAMP SEC.
BEAVERTON-TIGARD HWY - WASHINGTON COUNTY

Action	Date	Signature	Title
Submitted	11-6-78		
Approved	11-13-78		
	12-4-78		
Accepted	12/19/78		

8952 143

STATE OF OREGON

INTEROFFICE MEMO

ODOT - Traffic DEPT. 378-6537 TELEPHONE

TO: D. O. Christensen
Final Design Engineer

DATE: January 15, 1979

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Progress Interchange Off-ramp
Glare Shield

As requested, we have reviewed the preliminary plans for the Progress Interchange off-ramp with respect to the need for a glare shield between the off-ramp and the Frontage Road.

Our calculations show that without a glare shield on the median barrier, glare from Frontage Road traffic would reduce the sight distance of off-ramp traffic to a level below the safe stopping sight distance in some areas. The plans show the glare shield in the proper position for the proposed highway alignment, however, if the downscoped grades are used, the shield will have to be extended to between Station "F" 34 + 50 and Station "F" 35 + 00.

If illumination is provided on the off-ramp, the glare shield could be eliminated.

L. E. George
Traffic Engineer Supervisor

DW:cs

REFERRED TO
Beard, Stoudenmeyer, Cole, Sample, Eriksen, Watson, Hagar, Dorn, Lou
Return, Discuss, Do, File Copy, Due
BY FINAL DESIGN ENGINEER

Versteeg, Christensen, George, Olson, Terpin, Sullivan, Scott, Anderson

RECEIVED
JAN 17 1979
ENGINEERING SECTION

Trout
Do Not File ☐
Return To
Bring Up ___/___/___
Action

8952

144

STATE OF OREGON

INTEROFFICE MEMO

ODOT - Traffic (DEPT.) 378-6537 (TELEPHONE)

TO: D. O. Christensen
Final Design Engineer

DATE: December 27, 1978

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Progress Interchange Off-Ramp
Beaverton-Tigard Highway
Washington County

Attached are two approved prints of the sign study plan for the above-named project.

L. E. George
Traffic Engineer Supervisor

ALB:ds
Attachments

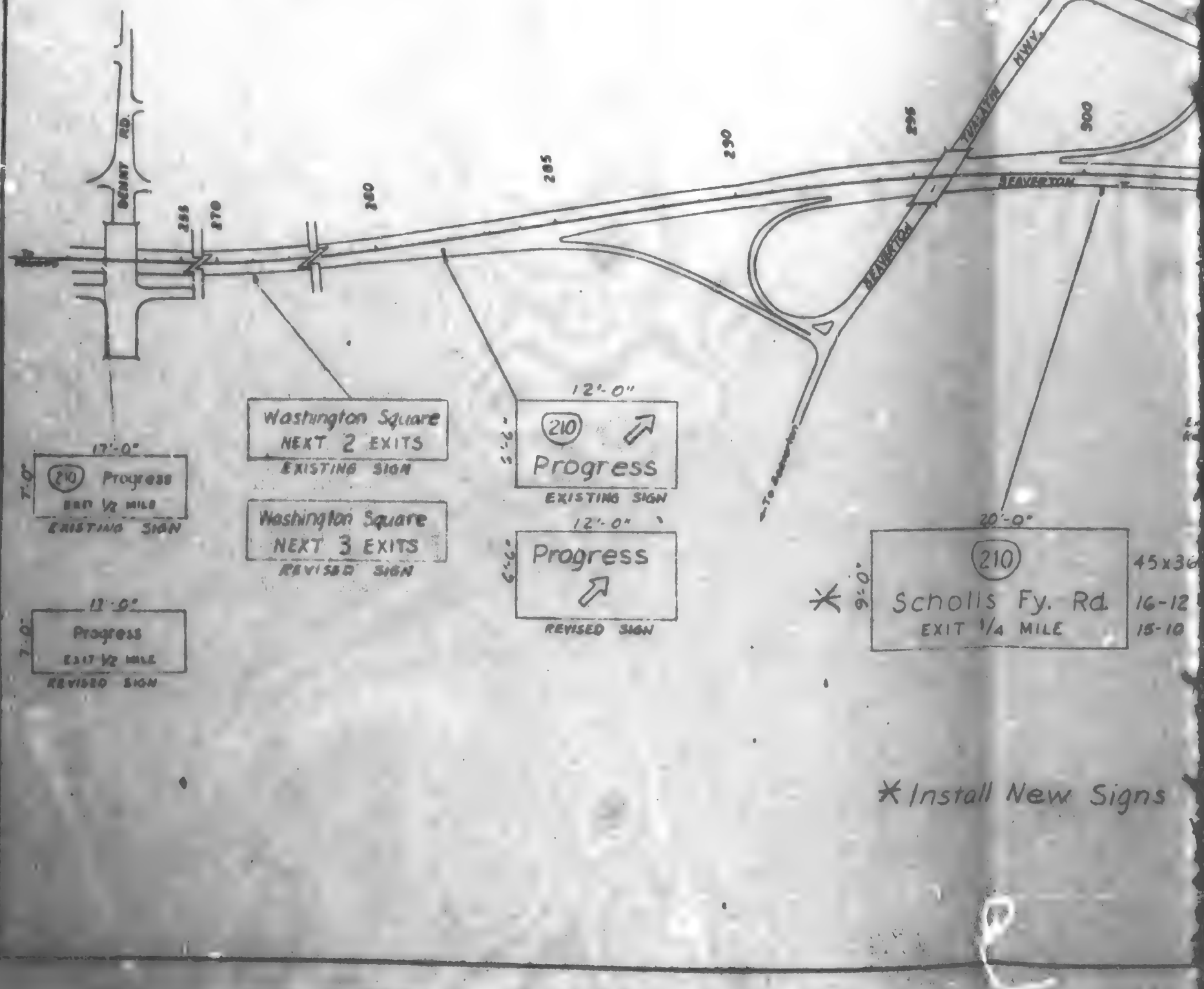
cc: R. N. Bothman
E. L. Hardt
F. T. Lacey
W. W. Geibel

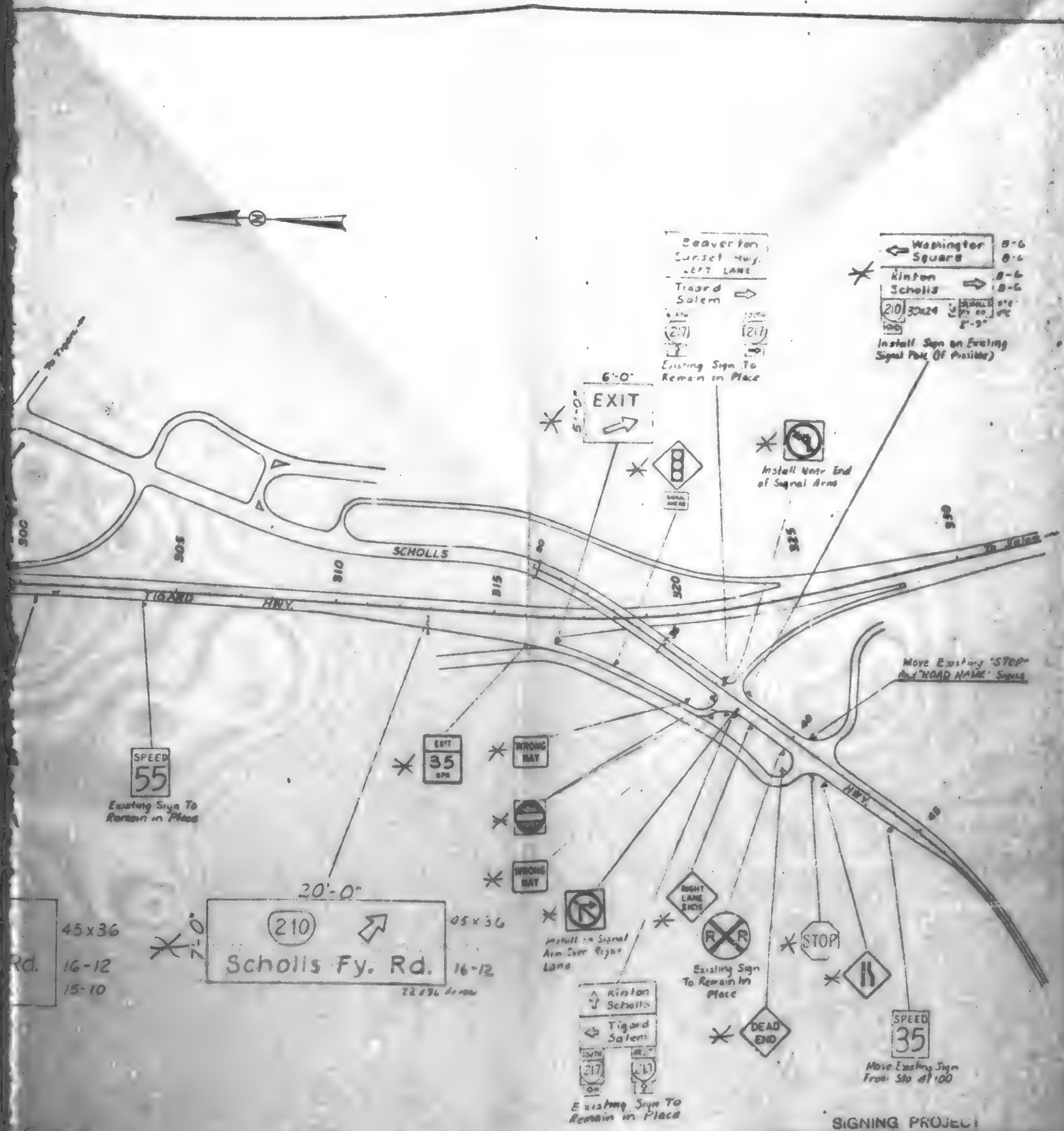
REFERRED TO
2 Beard W&B Stoudenmeyer
Cole Sample
Eriksen 1 Watson RW
Hager Dorn Leu
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER
1 plan Retained W&B

Verstoeg
I Christensen DC
George
Olson
Terpin
Sullivan
Scott
Anderson

RECEIVED
DEC 28 1978
ENGINEERING SECTION

Trout
Do Not File ☐
Return To
Bring Up / /
Action


BENNET RD.
255
270
280
285
290
295
300
TUALATIN HWY.
BEAVERTON
BEAVERTON
TO TIGARD
TO BEAVERTON
Washington Square
NEXT 2 EXITS
EXISTING SIGN
17'-0"
7'-0"
210
Progress
EXIT 1/2 MILE
EXISTING SIGN
Washington Square
NEXT 3 EXITS
REVISED SIGN
13'-0"
7'-0"
Progress
EXIT 1/2 MILE
REVISED SIGN
12'-0"
9'-6"
210
Progress
EXISTING SIGN
12'-0"
9'-6"
Progress
REVISED SIGN
20'-0"
9'-0"
210
Scholls Fy. Rd.
EXIT 1/4 MILE
45x36
16-12
15-10
* Install New Signs



NOTE: All Signs Not Shown Are To Remain in Place.

John F. Crockett

12/1/78
DATE

SIGNING PROJECT

PROGRESS INTRCHGE OFF RAMP SEC.
BEAVERTON-TIGARD HWY. - WASHINGTON COUNTY

Action	Date	Signature
Submitted	11-6-78	
Approved	11-29-78	
	12-1-78	
Accepted	12/4/78	

8952 143

ORIGINAL SIGNED
DUANE O. CHRISTENSEN

Salem, Oregon
December 20, 1978

Duane O. Christensen
Final Design Engineer

Don Adams, Metro
Project Development Manager

Progress Interchange Off-Ramp
FAU 9234 (Scholls Highway)
Washington County

/ Versteeg ✓
Christensen
George
Olsen
Terpin
Sullivan
Foss
Anderson
Trout

RECEIVED
DEC 21 1978
ENGINEERING SECTION

Do Not File ☐
Return To
Bring Up ___/___/___
Action

The estimate of costs of the subject section is $540,000. A downscoped project has been worked up at an estimated cost of $359,000.

The following items are enclosed for your review with the downscoping indicated in red.

1. Original and downscoped estimate
2. Plan and profile
3. Typical Sections
4. One roll of Cross-sections

Profile grade of the "E" Line and "F" Line were revised which reduces the length and height of retaining wall required.

Base design on the "F" Line is revised as noted on the typical section.

Lane and shoulder widths were reduced to minimums.

The item for permanent illumination is deleted. The Traffic Section has reviewed the warrants for illumination and they believe they are still justified. Illumination was previously approved by the State Highway Engineer on November 29, 1978. See attached letters.

Reducing lane and shoulder widths does reduce the project costs. Due to the projected 5,000 ADT on the exit ramp, we do not feel that it's ramp width should be reduced. Future traffic volumes may require two lane ramp.

After the completion of your review, please return the plan, profile, typical sections and cross-sections, as they are our only copies.

Please give us your recommendations as to how we should proceed with the completion of the plans.

E. L. Hardt L. E. George Jack Sullivan Lyle Watson

8952

STATE OF OREGON

INTEROFFICE MEMO 143

ODOT - Traffic DEPT. 378-6537 TELEPHONE

TO: D. O. Christensen ATTN: Lyle Watson
Final Design Engineer

DATE: November 29, 1978

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Progress Interchange Off-Ramp
FAU 9234 [redacted] Highway)
Proposed [redacted]

The above project has been reviewed and does warrant partial interchange lighting based upon our "Guidelines for Illumination". A copy of the necessary approval of the State Highway Engineer is attached.

L. E. George
Traffic Engineer Supervisor

VLT:cs

cc: E. S. Hunter
J. H. Versteeg
W. J. Hart

REFERRED TO
Board, Stoudenmeyer, Cole, Sample, Watson, Erikson, Dorn, Lou, Hager
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

Versteeg, Christensen, George, Olson, Terpin, Sullivan, Scott, Andersen

RECEIVED
NOV 30 1978
ENGINEERING SECTION

Trout

Do Not File ☐
Return To
Bring Up ___/___/___
Action

STATE OF OREGON

INTEROFFICE MEMO

ODOT - Traffic (DEPT.) 378-6537 (TELEPHONE)

TO: H. S. Coulter
State Highway Engineer

DATE: November 22, 1978

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Progress Interchange Off-Ramp
FAU 9234 (Schools Highway)
Washington County
Proposed Illumination

The above named project has been reviewed and does warrant partial interchange lighting based upon our "Guidelines for Illumination". I request your approval for this illumination project.

L. E. George
Traffic Engineer Supervisor

VLT:cs

cc: E. S. Hunter

APPROVED
H S Coulter
STATE HIGHWAY ENGINEER
DATE: 11/24/78

sig to George
by Hunter

11-28-78
Copy sent to Bridge.
DJ

RECEIVED
NOV 28 1978
TRAFFIC ENGINEERING

RECEIVED
STATE HWY ENGR
NOV 24 '78
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

2-1-2

PROJECT MANAGEMENT OFFICE MEMO

Date 11-20-78

Subject Progress Interchange Offramp. File No.

Received (call) ~~(visit)~~ from Lyle Watson

Address

Made (call) (visit) to Phone

Reason for contact and general discussion: Estimate was originally $350,000 is now $530,000 are additional funds available, told him I would check w/Metro. (Everyone Gone from Metro by 3:45 because of Weather). Discussed w/Rose & Watson decided to use $50,000 for estimate. Metro will request additional funding from CRPG.

Signature Gary E. Zahm

File ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )
Circulate: PME LGE OPE FAE CCE OM Other

8752

FORM E-30

OREGON STATE HIGHWAY DIVISION

INTER-DEPARTMENT CORRESPONDENCE

Portland, Oregon

DATE August 23, 1978

TO J.B. BOYD
R/W Manager
Salem, Oregon

ATTENTION: ROD HENRY ✓
Assistant R/W Manager

FROM KENNETH ROLFE
Region R/W Supervisor
Region I - Milwaukie

SUBJECT PROGRESS INTERCHANGE
Washington County
Scholls Highway

August 22, 1978

Today I met with Fred Gilman, manager for Portland Chain Mfg. Co. on Scholls Ferry Road. The purpose of this meeting was to discuss the present access they have to Scholls Ferry Road.

This particular access point is not used more than about a dozen times a day by delivery trucks coming to and leaving the property. Small trucks could use Cascade Blvd. which is used by most of the employees. However, they have regular deliveries of steel 30' long and the trucks carrying it can make the turn off Cascade into the parking lot so they are the main users of the Scholls approach. Mr. Gilman doesn't think these large trucks will affect traffic here because they ordinarily deliver during low traffic times.

The property across Cascade Blvd. which we optioned under File 50083 has recently been purchased for the purpose of building an office-type building on it. Their plans indicate they won't be using their approach to Scholls Ferry.

The new owner indicated they would sell the access if there was enough money in it for them.

After the above discussion and one with Rob Cameron, it is our recommendation these accesses remain as they are at least until after the project is completed. It is extremely doubtful these accesses will generate the type of traffic movement that will congest traffic in this area.

KR:kc
cc E.L. Hardt
B. Bothman

295

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

METROPOLITAN SECTION

5821 N.E. GLISAN, PORTLAND, OREGON 97213

May 10, 1978

Telephone 238-7437

NOTED
E. S. HUNTE

MR. FRANKLYN BROWN
Tigard Professional Plaza
8862 Southwest Center Court
Tigard, OR 97223

Dear Mr. Brown:

I received your letter of April 26, 1978, requesting a hearing on the Progress Interchange Offramp to Scholls Ferry Road project.

The legal requirements for this project have been reviewed. The preliminary design as shown in the environmental document was presented to you by Rob Cameron, Resident Engineer, and I in June of 1977. The Draft Negative Declaration of Environmental Impacts with the proposed alignment was mailed to you with a cover letter inviting you to correspond with the Oregon Department of Transportation (ODOT) November 2, 1978.

The 1974 Federal Aid Highway Program Manual, Volume 1, Chapter 7, Section 1, paragraph 11B(7), and Section 5, paragraph 7a(8) state that two notices for hearing request shall be published with the deadline for submission of requests not less than 21 days after the date of publication of the first notice nor less than 14 days after the date of publication of the second notice.

The first public notice was published on November 3, 1977, the second on November 10, 1977, in the Oregonian, the Oregon Journal and the Daily Journal of Commerce. The deadline date was November 25, 1977. No request for a hearing was presented to ODOT; thus, no hearing was held.

The legal requirements of offering a hearing and distributing the project information to all interested

cc Turpin 5-11-78

RECEIVED
TECHNICAL SERVICES
MAY 11 '78
REFER TO
FOR
Info | Invest | R/D | P/R | Hwy | Rail | Trans

parties was completed by ODOT in December of 1977 with no request for a hearing. Since that time, our Department has received Federal approval of the project and right-of-way acquisition is underway.

I am sorry to advise at this late date a hearing would not be possible.

for

RALEIGH CAROTHERS
Project Coordinator

RC/ldo

cc: E. B. Klaboe
[redacted]
G. A. Potter
J. L. Sollis
R. N. Bothman
G. W. Kaiser

Law Offices of . . .

FRANKLYN BROWN

TIGARD PROFESSIONAL PLAZA
8862 S.W. CENTER COURT
TIGARD, OREGON 97223
PHONE (503) 639-7062

April 26, 1978

Department of Transportation
Metropolitan Section
5821 NW Glisan
Portland, OR 97213

Attention: Raleigh Carothers, Project Coordinator.

Dear Mr. Carothers,

I am writing you this letter regarding the Progress interchange off-ramp to Scholls Ferry Road.

When the representatives of your office originally met with other interested land-owners and myself, I was told that my property at 9735 SW Scholls Ferry Road would not be substantially effected by the proposed off ramp.

Subsequently, the proposed plan was changed, taking the majority of my property. The notice of a public hearing was by publication. In this case, there are a small number of interested landowners, all of their addresses are known, and they have been previously contacted by your department. In such a situation, notice by publication cannot be considered to be reasonably calculated to appraise the parties of the action.

I therefore demand that the hearing be held and that the other interested parties be given proper notice thereof, and that no further action be taken prior to the hearing.

Very truly yours,

Franklyn N. Brown

sf

ROBERT W. STRAUB
Governor

Department of Transportation
METROPOLITAN SECTION
5821 N.E. GLISAN, PORTLAND, OREGON 97213

November 2, 1977

Telephone 238-7437

LETTER TO INTERESTED PARTIES

Subject: Progress Interchange Offramp
to Scholls Ferry Road

I wish to advise you of the development of this project. Extensive liaison and meetings have been held with the CPO, property owners, businesses and governmental agencies in the project area to inform you of this proposed project.

The draft Negative Declaration of Environmental Impacts for this project has now been completed and a copy is attached. Copies are also available for review at the following locations:

Environmental Section, Room 412, Oregon Transportation Building, Salem;
Oregon Department of Transportation office, 5821 Northeast Glisan Street, Portland;
Oregon State Highway office, 9200 Southeast McLoughlin Boulevard, Milwaukie;
Washington County Public Works office, County Administration Building, 205 Southeast Second Avenue, Hillsboro;
Beaverton City Library, 4950 Southwest Hall Boulevard, Beaverton; and,
Tigard Public Library, 12568 Southwest Main Street, Tigard.

For questions concerning the draft Negative Declaration or other project information, call Robert Ewen, phone 238-8231.

Raleigh Carothers
RALEIGH CAROTHERS
Project Coordinator

RC/ldo
Attachment
cc: R. N. Bothman
E. L. Hardt
D. R. Adams
R. T. Ewen
R. R. Cameron
C. P. Markham

C

D. G. BALDWIN
520 Southwest Yamhill Street
610 Pacific Building
Portland, OR 97204

MR. R. M. MacTARNAHAN
11416 Southwest Lynnridge
Portland, OR 97225

MR. SCOTT MacTARNAHAN
11416 Southwest Lynnridge
Portland, OR 97225

MR. HENRY BURNS
9730 Southwest Scholls Ferry Road
Tigard, OR 97223

DR. VERNER LINDGREN
3807 Southwest Martins Lane
Portland, OR 97201

MR. FRANKLYN BROWN
8862 Southwest Center Court
Tigard, OR 97223

MR. RICHARD BOLEN
City of Tigard
12420 Southwest Main
Tigard, OR 97223

MRS. BEVERLY FROUDE
Chairman, CPO #4
12200 Southwest Bull Mountain Road
Tigard, OR 97223

MR. TIM O'CALLAGHAN
8432 Southwest Nimbus
Beaverton, OR 97005

MR. FRED WOLFER
Beaverton Chamber of Commerce
12955 Southwest Farmington Road
Beaverton, OR 97005

MR. FORREST DORNIK
GAF Corporation
8585 Southwest Hall Boulevard
Beaverton, OR 97005

MR. JERRY WILLIAMS
City of Beaverton
4950 Southwest Hall Boulevard
Beaverton, OR 97005

8452

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
[illegible]-9234(2)

STATE PROJECT NO.
See Below

COUNTY NAME
Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
80173

TO:

Mr. F. B. Klaboe
Chief of Operations, ODOT
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	2-27-78	FAU 9234	Secondary 143

GENERAL LOCATION:
"Progress Interchange Off-Ramps Section"

GENERAL DESCRIPTION OF WORK:
Right of Way

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION
☐ OTHER (Specify)

☒ ACQUISITION OF RIGHT-OF-WAY
CONTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS
☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's 2-21-78 letter I approve the relocation plan for the subject project and you are authorized to proceed with all phases of right of way acquisition as outlined on right of way map 8B-20-6, at a TEC NTE $114,060 - Federal funds $97,860.

Federal participation is limited to that right of way actually incorporated in the final location.

NOTED
F. B. KLABOE
3-14

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
3-10-78	G. K. Hansen	for Division Administrator

FORM PR-1240 (REV. 8-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—626-787

8952

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

2-24-78

FEDERAL AID PROJECT NO.
M-9234(1)

STATE PROJECT NO.
See Below

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
71436

COUNTY NAME
Washington

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. F. B. Klaboe
Chief of Operations, DOT
State of Oregon
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	2-24-78	FAU 9234	Secondary 143

RECEIVED
DIV. OF OPERATIONS
MAR 1 '78
REFER TO
FOR

GENERAL LOCATION:

"Progress Interchange Off Ramp Section"

GENERAL DESCRIPTION OF WORK:

Preliminary Engineering

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☒ PREPARATION : TEC NTE $5,000, Federal funds $4,290
☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY
CONTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS
☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's 2-10-78 letter.

NOTED
F. B. KLABOE
3-1-78

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
2-24-78	G. K. Hosmer	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

8952

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

February 21, 1978

TO: G. L. Green, Division Administrator
Federal Highway Administration

FROM: D. E. Swan
Federal Aid Manager

SUBJECT: PROJECT DATA SUBMISSION
Item No. 80173
Project No. M-9234(2)
Progress Interchange Off-Ramp Section
Washington County

Enclosed is data for the subject project.

This project has been originated by local officials and concurred in by the Oregon Transportation Commission and the State Highway Division.

We request the following:

1) Authorization to proceed with all phases of right-of-way acquisition including business moving costs and demolition at an estimated total cost of $114,060 with an obligation of $97,860 in federal funds. The right-of-way to be acquired is as outlined on the enclosed copy of right-of-way map 8B-20-6.

Assurances regarding the availability of replacement housing is not required since the only relocation on the project consists of a business move. Relocation assistance for the business move will be provided from the Metropolitan Right-of-Way Office in Portland.

Building demolition as required will be accomplished in accordance with our approved demolition plan.

CL:lml
Att.

cc: M. Klotz, Metro
J. Boyd
F. Lowe
G. Zehner

ADV. DEP. NOT REQUIRED

Budget Bureau No. 41-R2067.

U.S.

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

2-21-78

FEDERAL-AID PROGRAM DATA.

(PPM 21-1)

CARD 2 | REPORT NUMBER (18) (20) | PROJECT LOCATION (45 typewriter spaces) 21: SR 210, 0.5 mi. S.W. of Progress 65 | ADT | PRESENT: * | FUTURE (66): 2,900 | YEAR (70) (71) (72): 98 | REGION: 10 | STATE NAME: Oregon

CARD 3 | CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28: Right-of-Way Acquisition 62 | NATL. FOREST (63) (65) | FH ROUTE NO. (66) (68) | SUPV AGCY (69) | DA CLASSIF. (70) | DA AREA (71) | EMERG. YR. (72) (73) | PL. AUTH YR (74) (75) | PROJECT NUMBER: PREFIX LETTER(S) 14: M- | NUMBER 29 7: 9234(2)

CARD 4 | CLASS OF FEDERAL FUNDS: Urban System | NAME OF URBAN AREA 17-31: Portland | COUNTY NAME: Washington (114) | ROUTE NO. U | FEDERAL-AID (22): 9234 | STATE (36) (37): 143 | U.S.

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK: CLASS	WORK: TYPE (42 46)	STEP (53)	TERMINI (Full description)	MILES (54) (56)	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST (59) (66)	FEDERAL FUNDS (67) (76)	STATE FUNDS	OTHER FUNDS
1	(14-15)	(16	41	42								
5					PE							
5					ROW		"Progress Interchange Off-Ramp Section"	0.19	114,060	97,860	16,200	
5					CONST (CODE)							
								0.19	114,060	97,860	16,200	

(116) (23) (24) (33)

CARD 1 | CODE 1 | PREPARED BY: C.L | PROJECT TOTALS

1 | 14 | PROGRAM APPROVAL DATES

REMARKS: Additional Data, see item No. M-9234(1).

*No existing facility

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

FORM PR-1 (REV. 4-61)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA.

(PPM 21-1)

2-21-78

T LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
10, 0.5 mi. S.W. of Progress	ADT	*	2,900	98	10	Oregon	41	W36	80173

RK (35 typewriter)	NATL. FOREST	FH ROUTE NO.	SUPV AGCY	DA CLASSF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST MI.	DESIG.
ition								M-	9234(2)			

tem	COUNTY NAME	CODE
	Washington	067

ROUTE NO. U	FEDERAL-AID	STATE	U.S.
	9234	143	

PROGRAM STAGE: [ ] 1 OR [ ] 2

RK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
W		"Progress Interchange Off-Ramp Section"	0.19	114,060	97,860	16,200		ROW-200' normal; Access control-complete; Parking restrictions-complete.
ST								
C.L.		PROJECT TOTALS	0.19	114,060	97,860	16,200		

AL DATES

REMARKS

*No existing facility

Additional Data, see item No. 71436; Project No. M-9234(1).

USCOMM DC [illegible]

Progress Interchange Off-Ramp Section
Project No. M-9234(2)

Project Data: Work under this project consists of the acquisition of right-of-way all phases including relocation assistance necessary for the future construction of a south-bound off-ramp from the Beaverton-Tigard Highway to the Scholls Highway (FAU 9234) at the Progress Interchange.

FHPM 7-7-2 Requirements: Final Negative Declaration approved by FHWA on January 31, 1978.

FHPM 7-7-5 Requirements:

a) Public Hearings -- Opportunity for a hearing offered, but none requested.

b) Location/Design -- Approved by FHWA on January 31, 1978.

Data for PR-37: Relocation assistance

Moving Costs (1 business) --- $12,000
Building Demolition --- $2,400

Note:
1) This project is in Congressional District No. 1.
2) Included in CRAG FY 1978 TIP annual element No. 98.

8952

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

February 10, 1978

TO G. L. Green, Division Administrator
Federal Highway Administration

Original Signed By
D. E. Swan

FROM D. E. Swan
Federal Aid Manager

SUBJECT PRELIMINARY ENGINEERING (Phase 2)
Project No. M-9234(1)
Progress Interchange Off-Ramp Section
Washington County

We request authorization to proceed with the portion of preliminary engineering, including utility preparatory work, necessary to obtain PS&E approval at an estimated total cost of $5,000 with obligation of $4,290 in Federal funds.

This request is based on the fact that FHWA's adoption of the "Final Negative Declaration" on January 31, 1978 constitutes location/design approval.

JLG:dmc
cc: [redacted]
E. S. Hunter
F. E. Terpin
J. H. Versteeg
Walt Hart
Max Klotz, Metro
E. L. Hardt, Reg. 1
W. Wakerlig

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STATE HWY ENGR
FEB 13 '78
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

NOTED
H.S. COULTER

89.52

FINAL

NEGATIVE DECLARATION

PROGRESS INTERCHANGE OFF-RAMP
at
SCHOLLS FERRY ROAD
and
BEAVERTON-TIGARD HIGHWAY (ORE 217)

WASHINGTON COUNTY, OREGON

CONTENTS

	Page
INTRODUCTION	1
PURPOSE OF PROJECT	2
PROJECT DESCRIPTION	2
ALTERNATIVES	4
EXISTING ENVIRONMENT AND PROBABLE IMPACTS OF THE PROPOSAL	5
Topography, Hydrology and Water Quality	5
Vegetation and Habitat	5
Land Use and Right-of-way	6
Traffic	9
Noise	11
Air Quality	13
Material Resources and Energy	13
Esthetics and Historical Resources	14
SUMMARY OF IMPACTS	15
PUBLIC PARTICIPATION AND COORDINATION WITH OTHER AGENCIES	17
BASIS FOR NEGATIVE DECLARATION	17
APPENDIX A	18

CONTENTS

	Page
INTRODUCTION	1
PURPOSE OF PROJECT	2
PROJECT DESCRIPTION	2
ALTERNATIVES	4
EXISTING ENVIRONMENT AND PROBABLE IMPACTS OF THE PROPOSAL	5
Topography, Hydrology and Water Quality	5
Vegetation and Habitat	5
Land Use and Right-of-way	6
Traffic	9
Noise	11
Air Quality	13
Material Resources and Energy	13
Esthetics and Historical Resources	14
SUMMARY OF IMPACTS	15
PUBLIC PARTICIPATION AND COORDINATION WITH OTHER AGENCIES	17
BASIS FOR NEGATIVE DECLARATION	18
APPENDIX A Relocation Information	19
APPENDIX B Historic Preservation Officer's Letter	23

FINAL NEGATIVE DECLARATION
Progress Interchange Off-Ramp
onto Scholls Ferry Road
Beaverton-Tigard Highway (ORE 217)
Washington County, Oregon

This project is advanced by administrative action of the Oregon State Department of Transportation (ODOT) in cooperation with the Federal Highway Administration (FHWA).

The Beaverton-Tigard Highway (ORE 217) is a north-south, divided, 4-lane expressway (Figure 1) west of Portland, which connects Interstate 5 near Tigard with the Sunset Highway (US 26). It is in the process of being upgraded to freeway standards by replacement of the two remaining signal intersections with interchanges. Scholls Ferry Road, which crosses Highway 217, was once a rural standard farm-to-market road and is now being subjected to the traffic pressures created by rapid urbanization.

The existing interchange at Scholls Ferry Road and ORE 217 consists of a southbound on-ramp from Scholls Ferry Road to 217 and a northbound off-ramp from 217 to Scholls Ferry Road. A northbound on-ramp from Scholls Ferry Road to 217 is located approximately halfway between the Scholls Ferry interchange and the Hall Boulevard interchange. This serves as a northbound return for both interchanges. Likewise, the southbound ORE 217 off-ramp at Hall Boulevard is the only existing southbound exit for both interchanges.

Traffic has increased greatly in the Progress area, due largely to traffic generated by Washington Square Shopping Center, and an increasing amount of commuter travel between southbound ORE 217 and the extension of Scholls Ferry

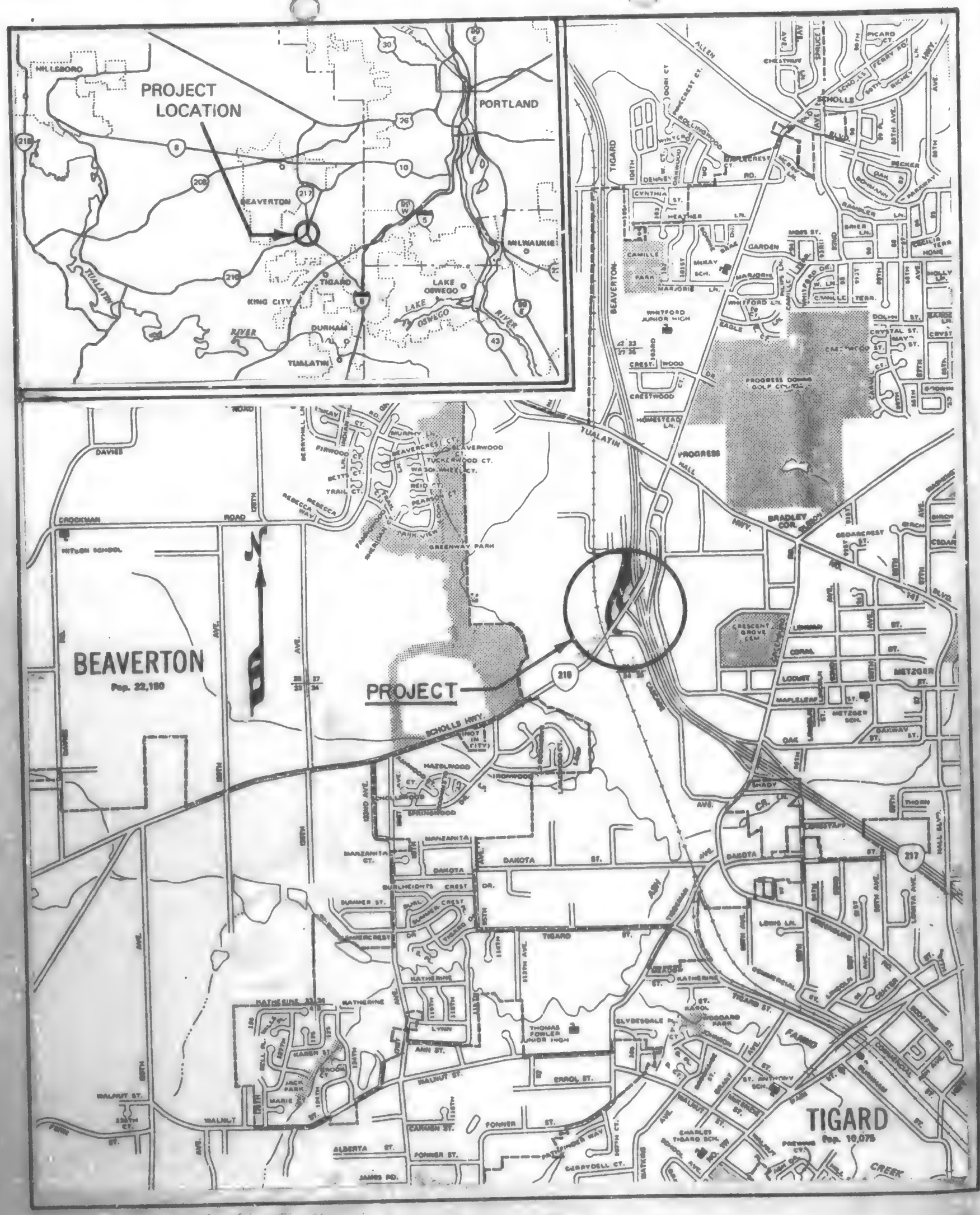


Figure 1. Project vicinity map.

Road southwest of ORE 217. This traffic adds to congestion at the 217 off-ramp at Hall Boulevard, the signalized intersection at Hall Boulevard and Scholls Ferry Road and at the westerly accesses to Washington Square Shopping Center. The levels of attendant noise, exhaust emissions, and congestion are aggravated by the through traffic to Scholls Ferry Road, and detract from the economy and livability of the Progress area.

PURPOSE OF PROJECT

The purpose of the proposed off-ramp from southbound ORE 217 to Scholls Ferry Road is to help relieve the problems outlined above by reducing traffic at the Hall Boulevard off-ramp and at the Hall Boulevard/Scholls Ferry Road intersection. It will also provide a safer, more convenient access from 217 to the rapidly developing areas along Scholls Ferry Road.

PROJECT DESCRIPTION

The proposed project (Figure 2) will provide an off-ramp from the southbound lanes of ORE 217 to Scholls Ferry Road. It will also relocate an existing frontage road slightly westward in order to provide sufficient width for the ramp construction. This frontage road is the access to Scholls Ferry Road for GAF Corporation and a building rented by Datsun Corporation. The proposed ramp and relocated frontage road will have separate connections to Scholls Ferry Road. The connections will be 325 feet apart and will have synchronized signals. A glare screen will be installed between the proposed off-ramp and the relocated frontage road.

The exit ramp will be 1,200 feet in length from its connection with ORE 217 to its intersection with Scholls Ferry Road. It will have a single 16-foot lane with paved, curbed shoulders 6 feet wide on the west side and 4 feet wide on the

east. The ramp will be on an earth fill reaching a maximum height of 13 feet at the Scholls Ferry intersection. A concrete barrier will be placed on the westerly side of the curve approaching the Scholls Ferry connection. Most of the ramp's alignment will lie between the existing frontage road and Highway 217, but it will connect with Scholls Ferry Road at the point now occupied by the frontage road.

The relocated frontage road will be 32 feet from curb-to-curb and will have two 12-foot travel lanes. It will be extended near the Datsun building to connect with Scholls Ferry Road 325 feet further to the southwest. This will bring the southbound travel lane within six feet of the southeast corner of the building, which will be protected by a shoulder barrier. The frontage road be at ground level along the building; therefore, a retaining wall be placed between the frontage road and the more elevated exit ramp. It is anticipated that Washington County will take over maintenance of the frontage road after construction. The state will include in the project a cul-de-sac for turning vehicles, just south of the GAF property, in order to satisfy county road standards.

Cascade Street, the frontage road serving the area south of Scholls Ferry Road along ORE 217, presently enters Scholls Ferry Road 120 feet northeast of the rail crossing. This access will be relocated an additional 80 feet further from the rail crossing so that it will meet the relocated northside frontage road at a common signalized intersection on Scholls Ferry Road. This minor realignment of Cascade Street will require approximately 1,400 square feet of new right-of-way, including a small corner of a parking lot. The present connection will be removed. New right-of-way totaling approximately 16,000 square feet be required for the project, and a rental dwelling and automotive body shop, presently occupied, will be removed.

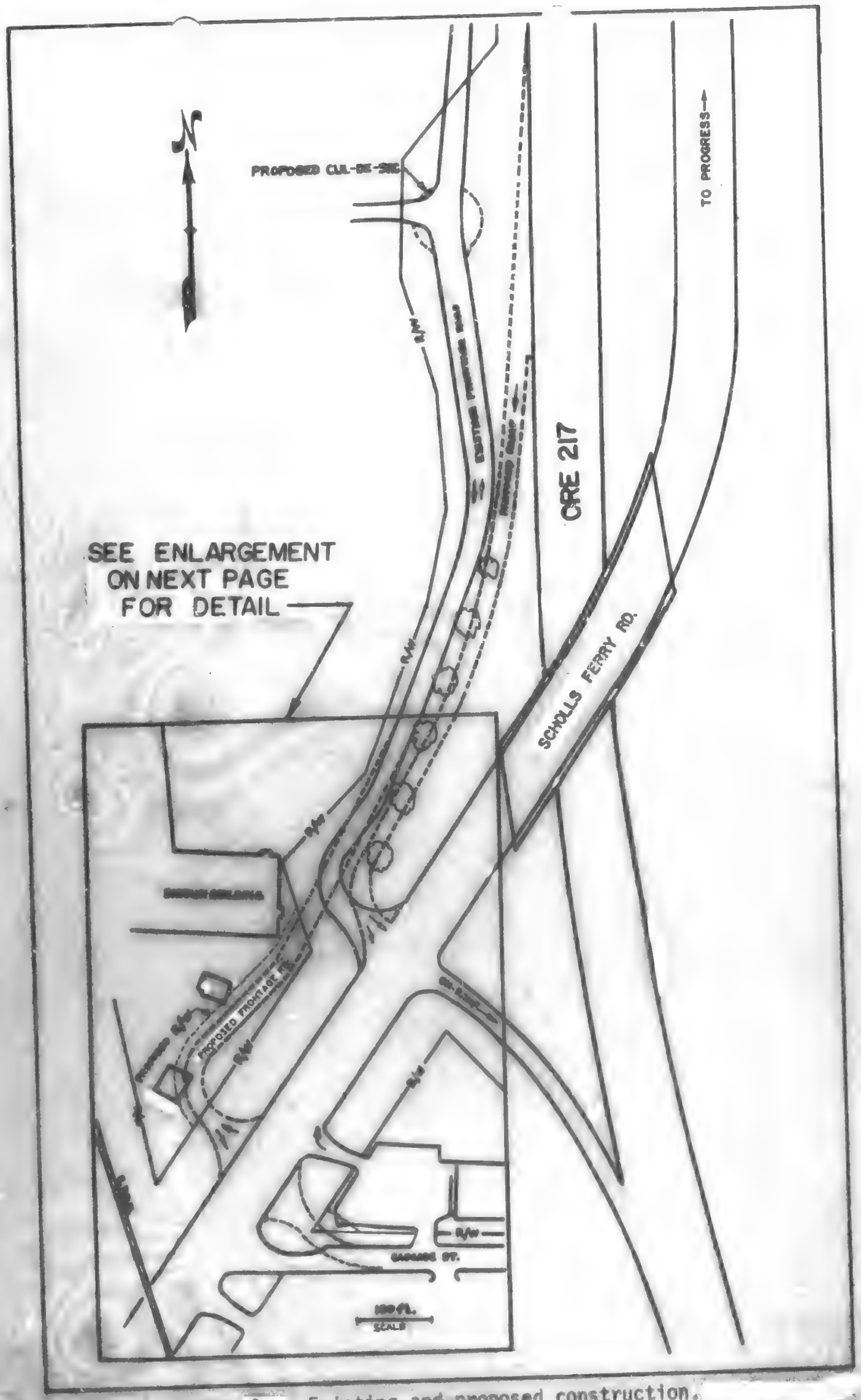


Figure 2a. Existing and proposed construction.

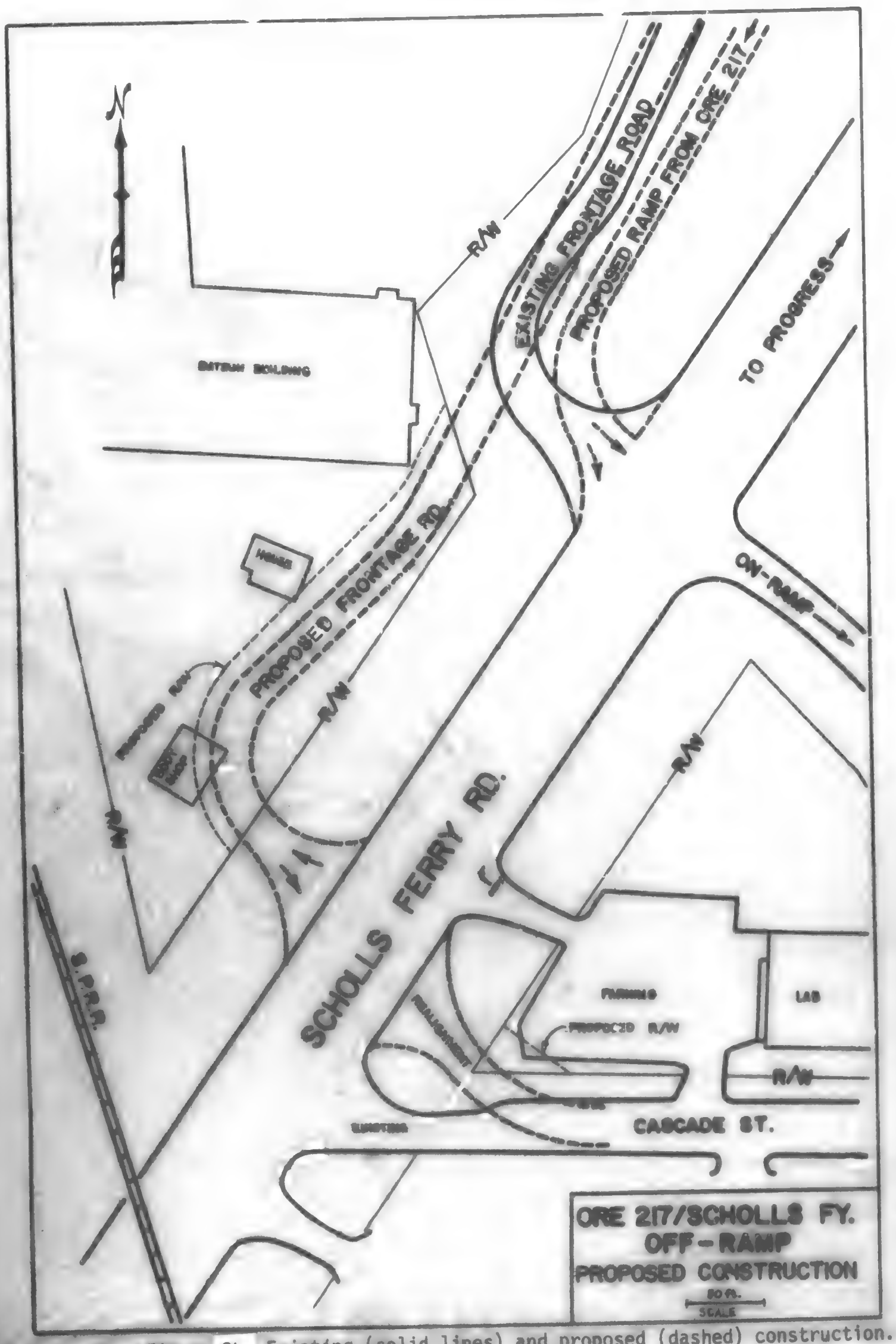


Figure 2b. Existing (solid lines) and proposed (dashed) construction.

No additional fill material will be needed for the project, since the excavated material from the existing frontage road fill will provide that needed for the ramp.

The estimated cost of the project is $315,000.

ALTERNATIVES

During the past several years, various approaches to the circulation problems in this area of Hall Boulevard, Highway 217 and Scholls Ferry Road have been considered. They have included proposals to change the signalization and channelization of several intersections, the addition of a connecting road between Hall Boulevard and Scholls Ferry Road west of the railroad, and various means of connecting an off-ramp from 217 to Scholls Ferry Road. The latter have included designs which would bring higher-speed ramp traffic onto the frontage road and thence to Scholls Ferry Road. Objections from GAF Corporation, a principal user of the frontage road, pointed out the safety hazard of mixing high-speed ramp traffic with the slower traffic on the frontage road, eliminating it as a prudent alternative.

Meanwhile, the strong development pressures created by Washington Square and Highway 217 have established traffic trends which make it unlikely that any single modification in circulation will completely solve the longer-term problem. The proposed project, therefore, is a relatively low-cost improvement geared to solving the immediate congestion problems.

The no-build option would maintain the existing traffic patterns, and the expected heavier traffic volumes between southbound ORE 217 and the southwesterly extension

of Scholls Ferry Road would lead to increasingly serious congestion on the Hall Boulevard off-ramp and at the Progress intersection. More detailed comparisons of traffic volumes will be made in the discussion of impacts in the following section.

EXISTING ENVIRONMENT AND PROBABLE IMPACTS OF THE PROPOSAL

Topography, Hydrology, and Water Quality

The proposed project is located in the Fanno Creek Basin, where the topography is moderately rolling. Fanno Creek is approximately 1,500 feet west of the proposed project, and the project would not directly affect the creek or its 100-year flood plain. The small volume of drainage from the proposed construction area is presently carried by an 18-inch culvert beneath the frontage road fill, a graded ditch, overgrown with tall grass, and supplemental 12-inch culverts which carry runoff to the ditch along the northwest side of Scholls Ferry Road. This ditch drains southwestward to the Southern Pacific rail bed where an 18-inch culvert carries water southward beneath Scholls Ferry along the rail line. The existing drainage system in the project area will be replaced by an improved system of continuous culverts with catch basins. There will be a slight increase in water yield from the area, due to the increased amount of pavement, but there will be no significant change in the quality of the discharge.

Vegetation and Habitat

Much of the vegetation in the project area consists of herbs and grasses planted as a part of earlier construction on the interchange. Six oak trees approximately 30 inches in diameter grow between the existing frontage road and ORE 217. It is

likely that all will have to be removed to accommodate the off-ramp construction. Nine smaller shrubs and trees located in front of the rental house will be removed to accommodate the relocated connection of the frontage road to Scholls Ferry Road. The tree removals will cause a decrease in shading and screening of the interchange and buildings and will reduce the amount of songbird nesting habitat in the immediate area. The reduction in habitat will not be significant, compared to the amounts of similar habitat located in nearby areas.

No threatened or endangered species are known to inhabit the project area. The project will not affect wetlands.

Land Use and Right-of-Way

A large industrial-commercial park is developing in a strip along the southwesterly side of ORE 217 between the Tigard and Beaverton areas. Commercial and higher density residential areas are located to the east. Washington Square, a regional shopping center, is also located east of ORE 217 just south of Scholls Ferry Road. Though the proposed project is outside the corporate limits of Tigard and Beaverton, much of Scholls Ferry Road just west of the interchange forms a common boundary between the two cities.

Washington Square and Highway 217 are probably the strongest forces propelling the ongoing changes in land use and comprehensive plans in the area. Suburban and industrial development are spreading rapidly as Washington County and the cities of Tigard and Beaverton grant plan changes which accommodate developers, and require annexations which open the rural lands to urbanization. Local farmers are selling their land to subdividers as taxes for recently installed

urban services consume agricultural profits. The conveniences afforded by Washington Square and Highway 217 have generated a profitable land market in this area.

The project will directly affect four parcels of private property and will require a total of 16,000 square feet of new right-of-way. One parcel is located north of Scholls Ferry Road east of the Southern Pacific Railroad and is occupied by an automotive body shop. That business will be removed by the project, since a portion of the frontage road realignment would pass through the easterly corner of the building. An alternative designed to avoid the building was considered, but was not acceptable, since it would have adversely affected access to the business and would also have increased the number of separate intersections on this section of Scholls Ferry Road.

The other two affected parcels of land north of Scholls Ferry Road are under a single ownership. One of these is occupied by a rental, 2-story frame house which will be removed by the project. The owner will be compensated for the property acquired, and tenant-occupants qualified at the time of negotiation will receive relocation assistance and benefits, as outlined in Appendix A. Sixty-five houses were advertised for rent within 5 miles of the project, in August 1977, indicating adequate availability of replacement housing. The other affected property in this ownership is occupied by a commercial building leased to Datsun as offices and a parts warehouse. The existing frontage road is its only access. New right-of-way will be required close to the easterly side of this building as well as through the property occupied by the house. The remainder of the relocated frontage road and the entire off-ramp facility will be located within existing highway right-of-way.

Approximately 1,400 square feet of right-of-way will be required for the realignment of Cascade Street. This will have no significant adverse affect on the remainder of the parcel, occupied by a plastics laboratory and its parking lot. The proposed project will not directly affect any prime farmland, though urbanization in the vicinity is presently removing prime farmland from production.

All property acquisitions, relocations, and compensations will be conducted in accordance with the "Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970", U.S. Department of Transportation Order 5620.1, and pertinent state relocation laws. Information on the procedures, rights and benefits prescribed under these laws is summarized in Appendix A.

The GAF Corporation plant is located between Scholls Ferry Road and Hall Boulevard north of the project. The plant uses the existing frontage road, but also has direct access to Hall Boulevard opposite the ORE 217 off-ramp at the Hall Boulevard interchange. No GAF property will be directly affected by the project.

Property between the Datsun building and the GAF property is presently vacant, but is indicated for industrial development in the Beaverton Area General Plan.

The project will improve access to the southwesterly extension of Scholls Ferry Road and the land it serves, increasing slightly the marketability of the area for residential subdivisions. It is likely that this will spur some further increase in the rate and extent of urbanization, already precipitated by the construction of Highway 217 and Washington Square, in the countryside

along Scholls Ferry Road. Urbanization is generating more traffic, and eventually will justify expansion of Scholls Ferry Road and the addition of another round of congestion to the Hall Boulevard and Scholls Ferry interchanges. Construction of the proposed off-ramp obviously will not be a primary cause of the urbanization process (those who make or force the broader land use decisions have that responsibility), but it will probably add some momentum and speed to the process.

Traffic

The existing configurations of the Hall Boulevard and the Scholls Ferry Road interchanges at ORE 217 were described in the introductory section. Figure 3 displays the 1977 average daily traffic volumes at these interchanges for the "no-build" and "build" options. Comparison of these options shows that the proposed off-ramp to Scholls Ferry Road will absorb approximately 2,000 vehicles per day, via southbound ORE 217, from the existing circulation at the intersection of Hall Boulevard and Scholls Ferry Road. Of the 2,000 vehicles per day which will use the proposed off-ramp, it is estimated that 1,500 will continue southwestward on Scholls Ferry Road and 500 will make a left turn to reach the Washington Square entrance. At the Hall Boulevard interchange, 1,500 additional vehicles will continue south on 217 to the new off ramp, and 500 vehicles eastbound on Hall Boulevard will take 217 to the new ramp instead of using the local route through Progress. Truck traffic to Scholls Ferry Road is approximately 5 per cent of the total traffic volumes.

The traffic projections for 1997 (Figure 4) show traffic volumes expected for the build and no-build options. It is projected that 4,200 vehicles per day will use the proposed off-ramp via ORE 217, rather than Hall Boulevard and Scholls Ferry Road. Of these, approximately 3,200 will continue southwestward on Scholls Ferry Road and 1,000 will turn left to Washington Square.

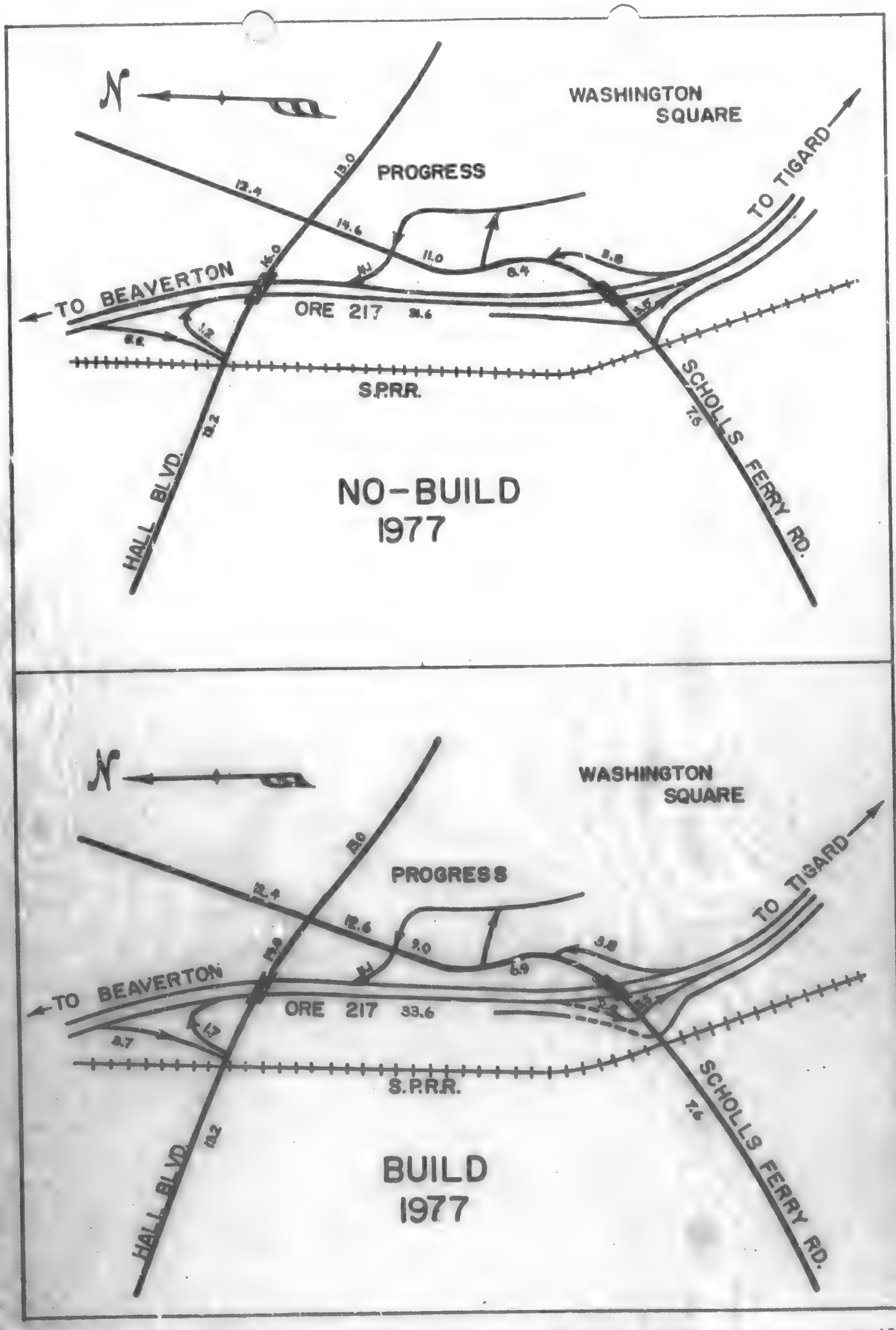
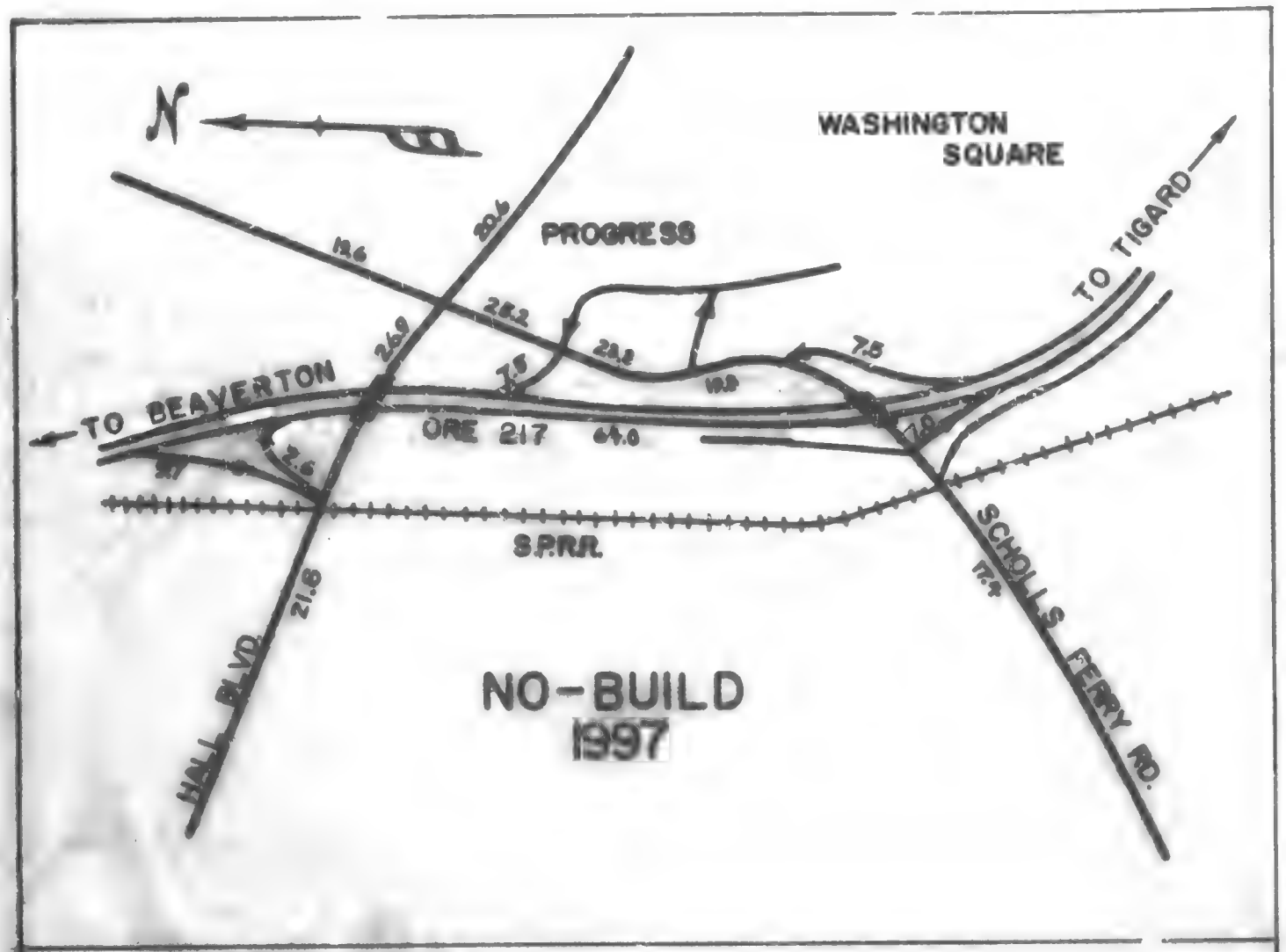


Figure 3. Traffic volumes (1000 vehicles per day) for 1977 build and no-build.



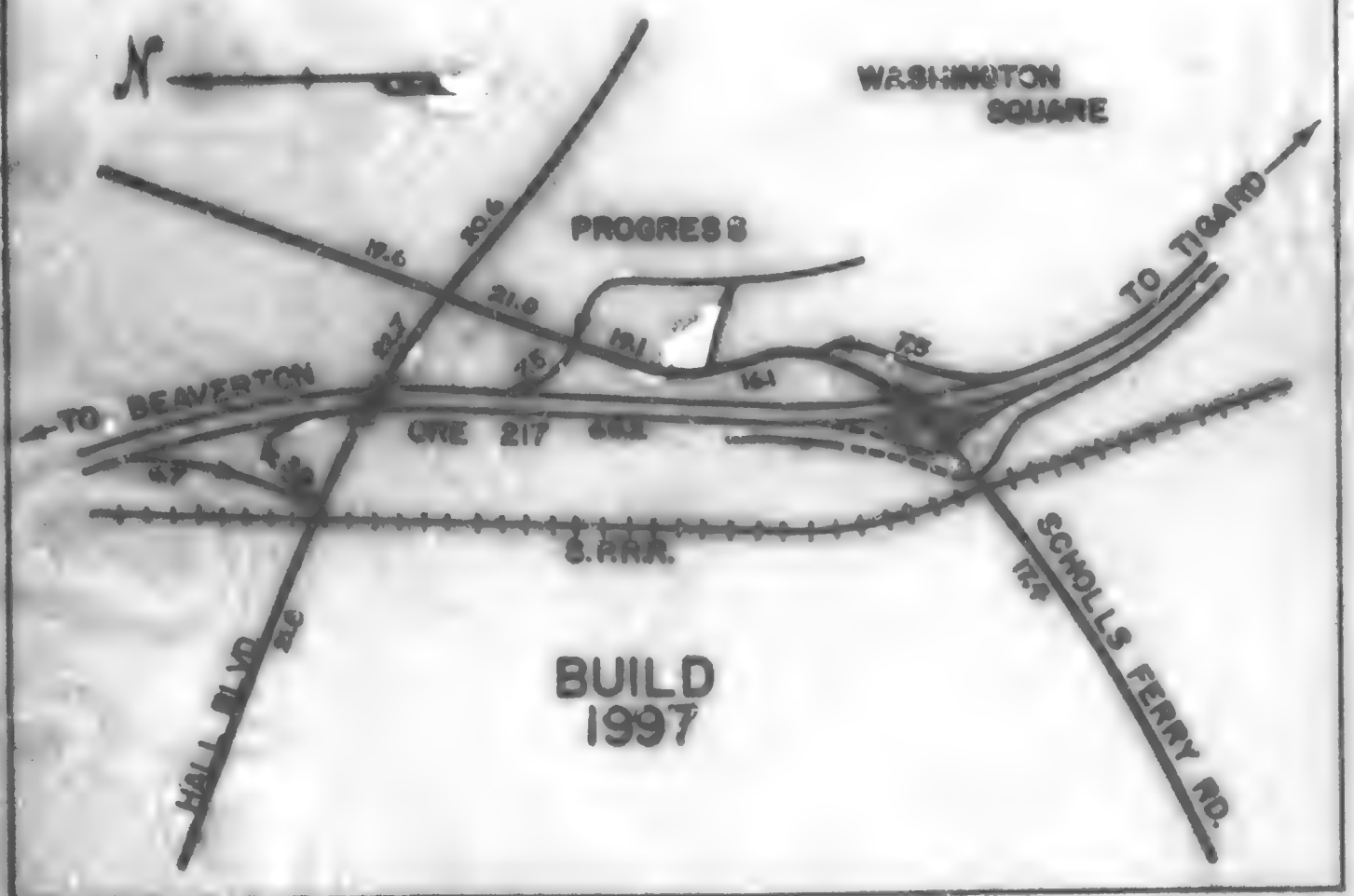


Figure 4. Traffic volumes (1000 vehicles per day) for 1997 build and no-build.

As mentioned in the preceeding section on land use, it is likely that the project will have some traffic generating influence on Scholls Ferry Road. This influence, however will be small compared to that of Washington Square and local and regional urbanization policies. Moreover, the volatile land development situation in the area makes quantitative prediction of the project's small traffic generating potential unreliable. Therefore reliable estimates of traffic generation by the project could not be incorporated into the projections for 1997 (i.e., 1997 projections of traffic on Scholls Ferry Road, west of the railroad, are shown as identical for the build and no-build alternatives in Figure 4).

Severe congestion presently occurs at the intersection of Hall Boulevard and Scholls Ferry Road, particularly during holiday shopping peaks at Washington Square. Construction of the southbound off-ramp at Scholls Ferry Road will help separate traffic bound for Scholls Ferry Road from the other circulation at the intersection, thereby reducing this congestion to more tolerable levels. Traffic queues on the southbound off-ramp at Hall Boulevard will also be reduced, allowing more green time at that signal for through traffic on Hall Boulevard. These benefits will continue until development of the service area once again outruns the gains made by the proposed improvement.

Motorists wishing direct access to the southwesterly extension of Scholls Ferry Road will benefit from the project in terms of safer, simpler passage and reduced travel times. A trip via Hall Boulevard and Scholls Ferry from the ORE 217 off-ramp at Hall to the present frontage road intersection at the proposed project site takes from 2 to 7 minutes. The trip via ORE 217, using the proposed off-ramp, will take approximately one minute.

Cascade Street is a frontage road which serves industrial and commercial facilities along the southwesterly side of ORE 217 between Scholls Ferry Road and Greenburg Road. It presently carries 1,100 vehicles per day, including approximately 110 vehicles during the peak hour, at the Scholls Ferry Road intersection. These volumes will rise as more businesses develop along Cascade. The laboratory at the northeast corner of Cascade and Scholls Ferry presently has a problem with traffic cutting through its parking lot to avoid the stop at the intersection. The proposed signalization and realignment of Cascade will help reduce that problem and will also place the intersection of the frontage roads and Scholls Ferry further from the rail crossing, which carries 12 freight trains per day.

The northside frontage road in the project carries approximately 600 vehicles per day, including approximately 180 vehicles during the peak hour. Traffic from this frontage road and Cascade will be handled by a traffic signal, interconnected with the ramp signal. Only right turns will be allowed from the laboratory parking lot directly onto Scholls Ferry Road.

Noise *

Noise levels were calculated for points 50 feet northwest of the existing frontage road, near the Datsun building, using the traffic data from the preceeding discussion. The results of the calculations are summarized in the following table:

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*This section constitutes the noise study report required by FHPM-773.

Year	L_{10} Noise Levels (dBA) *	
	No-Build	Proposed
1977	64	65
1997	65	67

The calculated differences between the noise levels for the no-build option and the noise levels for the proposed project are not statistically significant, and such small differences, if they actually were to occur, could not be detected by the human ear. Furthermore, these estimates are well within the L_{10} =75dBA maximum design noise level listed for commercial and industrial land use areas in the Federal Highway Program Manual 773. With the exception of the rental residence which will be removed by the project, all receptors which might be affected by these small calculated increases in noise levels are commercial or industrial.

The project will also cause slight reductions in noise levels along Hall Boulevard and Scholls Ferry Road since it would reduce the amount of through traffic on those roads.

Activity at the project site during construction will temporarily create noise and vibration which could be noticeable and sometimes distracting to users of offices in the corner of the Datsun building closest to the frontage road reconstruction. Little can be done to mitigate this impact, but it will neither be severe nor long in duration.

---

* L_{10} noise level is the noise level exceeded 10 per cent of the time.

Air Quality *

Addition of the proposed off-ramp will increase traffic on ORE 217 between the interchanges by approximately 7 per cent and reduce that on the corresponding section of Hall and Scholls Ferry by 12 to 20 per cent. Since these parallel routes are close to one another the net effect of this displacement of traffic on air quality will be small. The slightly increased distance from local stationary receptors will allow somewhat greater dilution of exhausts before they reached those receptors (during periods of common southwesterly winds).

More significantly, the existing congestion at the Hall Boulevard off-ramp and at the Hall/Scholls Ferry intersection will be reduced, decreasing the amount of stop-and-go and idling vehicles in the corridor. This will cause a corresponding decrease in exhaust emissions per vehicle until present levels of congestion resume as a result of future traffic generation from development in the area.

Material Resources and Energy

The project will require no special earth disposal sites, since material to be excavated from the site will only be in slight excess of actual construction needs and can be used optionally in the project site. Road base and paving materials will require approximately 5,000 tons of crushed rock and 180 tons of petroleum-derived asphalt cement from commercial sources. Both of these materials are becoming limited in supply--the rock supply regionally and the petroleum supply worldwide--but the proposed project will use them to good advantage by improving the operation and efficiency of the existing highway system without an excessive investment of materials.

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* An indirect source permit is required by the Oregon Department of Environmental Quality.

Construction of the project will reduce vehicular idling times and acceleration/ braking cycles by permitting smoother, more direct traffic flows. This will result in fuel savings.

Esthetics and Historical Resources

With the exception of the removal of the large oak trees, the project will not significantly modify the appearance of the interchange area. All areas in which earthwork will be done has been previously disturbed by earlier construction activity, making disturbance of significant archeological materials very unlikely. The Oregon State Historic Preservation Officer has determined that no cultural resources of National Register potential are known in the project area, and therefore none are likely to be impacted by the proposed project. (Appendix B).

SUMMARY OF IMPACTS

The table on the following pages summarizes the probable short-term and long-term impacts of the proposed project. "Short-term" refers to immediate effects of the construction; "long-term" refers to effects which are likely to occur within the next 20 years.

SUMMARY OF IMPACTS OF PROPOSED PROJECT COMPARED TO NO-BUILD

	Short-term	Long-term
HYDROLOGY	Negligible increase in runoff due to increased paved surface. Improved drainage.	
VEGETATION & HABITAT	Removal of 6 large oak trees and several smaller trees and shrubs.	Replacement of removed trees with maturing highway landscape species (shrubs, grasses,etc.).
LAND USE & RIGHT-OF-WAY	Acquisition and conversion of approximately 16,000 square feet of private property to highway right-of-way. Removal of one business and one rental residence. Maintenance of relocated frontage road by county after construction.	Probable reaggregation of parcel remainders just north of Scholls Ferry Road under a single ownership. Possible earlier development of land along Scholls Ferry Road (Not quantifiable), due to improved access.
TRAFFIC	Reduced congestion on local route between Hall Boulevard interchange and Scholls Ferry Road interchange. Slightly reduced travel times. Improved service to Scholls Ferry Road from ORE 217.	Circulation would be better than for no-build, but would need further improvement as continued land development generates larger traffic volumes. Improved service to Scholls Ferry Road from ORE 217.
NOISE LEVELS	Slight decreases at commercial areas along present local route. Minimal increase at Datsun building on low-volume frontage road, due to realignment.	Negligible changes in noise levels attributable to project.
AIR QUALITY	Slight improvement along local route; negligible increase in concentration of emissions on ORE 217 between interchanges; net decrease in emissions.	Negligible changes in air quality attributable to project.

Summary of Impacts of Proposed Project Compared to No-build (cont.)

	Short-term	Long-term
MATERIALS & ENERGY	Consumption of rock, asphalt cement and other materials by the project. Slightly improved vehicular efficiencies due to smoother traffic flows.	Slightly improved vehicular efficiencies in traffic from southbound ORE 217 to Scholls Ferry Road. Resumption of lower efficiencies on local route as congestion increases, but with net improvement over the no-build option.
ESTHETICS	Loss of trees, screening.	Negligible
COST OF PROJECT	$315,000 construction	Maintenance cost of added off-ramp and signals Slight decrease in maintenance costs on local route due to reduced traffic. Probable transfer of frontage maintenance responsibility to county.

PUBLIC PARTICIPATION AND COORDINATION
WITH OTHER AGENCIES

During the development of the project in 1977, and preceeding the publication of the draft negative declaration, several meetings were held with directly affected property owners bounding the project site. The purpose was to inform them of preliminary intentions of the Oregon Department of Transportation and to receive and respond to their comments and questions. A similar meeting was held with officials from Washington County, Beaverton, and Tigard. Presentations on the project were also given at citizen Community Planning Organization meetings.

There was general support for the project objectives at all of these meetings, and questions and comments were directed principally toward specific local effects on property, access, and circulation. As mentioned earlier, comments from GAF Corporation resulted in a substantial change from an earlier proposed project design.

The FHWA Division Administrator approved the Draft Negative Declaration on 26 October 1977. Public Notices advertising the availability of the Draft Negative Declaration, the nature of the project and the opportunity to request a public hearing were published in The Oregonian, the Oregon Journal and the Daily Journal of Commerce on 3 November 1977 and 10 November 1977. No comments or requests for a hearing were received prior to the closing date of 25 November 1977.

BASIS FOR NEGATIVE DECLARATION

The Oregon Department of Transportation concludes from the above information that the proposed project constitutes a major action as defined in Federal Highway Program Manual, Volume 7, Chapter 7, Section 2, and that implementing the action will not have impacts on the quality of the human environment of a significance or magnitude which would require the processing of an environmental impact statement.

CPM:ja
1/6/78

Concurred in by:

E. J. Lundy — 1-20-78

Technical Services Engineer — Date

V. V. Cook — 1-31-78

FHWA Division Administrator — Date

MOVING BECAUSE OF THE HIGHWAY?

A DESCRIPTION OF THE HIGHWAY DIVISION'S RELOCATION ASSISTANCE PROGRAM

State Highway Division policy requires that no family or individual will be required to vacate any dwelling until such displacee has found or been offered adequate replacement housing.

All replacement housing offered will be fair housing open to all persons regardless of race, color, religion, sex, or national origin. Fair housing will be available to all affected persons regardless of race, color, religion, sex, or national origin.

Federal Department of Transportation Order No. 5620.1 sets forth the same requirement for Federally-assisted projects.

Relocation legislation, because of its wide scope, is somewhat complicated and difficult to read and interpret. For the benefit of those who are affected by the State Highway Division property acquisitions, this leaflet summarizes the principal provisions of relocation services and benefits. However, persons reading this leaflet are urged not to form advance opinions as to the benefits and amounts to which they may be entitled. The right of way agent assigned to purchase a property will have detailed information for displaced persons.

OREGON STATE HIGHWAY DIVISION

Public Law 91-646, Title II, Section 216, states as follows: "No payment received under this title" (relocation payments) "shall be considered as income for the purposes of the Internal Revenue Code of 1954; or for the purpose of determining the eligibility or the extent of eligibility of any person for assistance under the Social Security Act or any other Federal Law."

RELOCATION SERVICES

The State Highway Division maintains fully-staffed regional right of way offices in the following locations:

5821 NE Glisan Street Portland 97213 Telephone No. 238-8215	9200 McLoughlin Blvd. Portland 97202 Telephone No. 653-3113
2960 State Street Salem 97310 Telephone No. 378-2641	1058 W. Harvard Roseburg 97470 Telephone No. 672-6541, Ext. 226
North The Dalles- California Highway Bend 97701 Telephone No. 382-1911, Ext. 38	1102 "K" Street La Grande 97850 Telephone No. 963-8446

These offices maintain current lists of replacement dwellings, businesses, and farms for displaced persons, as well as current data on required deposits for utilities, closing costs, typical down payments, interest rates, and FHA and VA requirements and information. The offices also have maps showing the location of schools, parks, playgrounds, and shopping areas. Public transportation routes are shown and schedules and fare information is available. An experienced right of way agent is available to aid displaced persons to the fullest extent. Right of way agents do not expect and will not accept any fee for any service rendered.

ELIGIBILITY

It is most important to note that eligibility to receive any of the following benefits is not complete until the affected property has been purchased by the State.

GENERAL MOVING EXPENSES

Service charges for reconnecting utilities are reimbursable, except under "Schedule Move Procedures".

INDIVIDUAL AND FAMILY MOVING EXPENSES

Any individual or family displaced by a State Highway Division project is entitled to receive a payment for reasonable expenses of moving personal property a distance not to exceed a 50-mile radius or to the nearest available and adequate site.

In order to obtain a moving expense payment, a dislocated person must file a written claim with the State Highway Division on a form provided for that purpose. Only those individuals or families in occupancy at the start of negotiations for the property are eligible to receive this payment. In some cases, where it is to the benefit of the displaced person, written prearrangement with the State Highway Division will allow the displaced person to present an unpaid commercial moving bill and the State Highway Division will make payment directly to the mover. Residential moving costs may also be claimed according to a set schedule based upon the number of rooms of furniture to be moved.

RESIDENTIAL MOVING SCHEDULE

Unfurnished
[Relocatee owns furniture]

$ 60 [1 rm]	$140 [3 rm]	$220 [5 rm]
$100 [2 rm]	$180 [4 rm]	$260 [6 rm]

Seven or more rooms – $300

Furnished
[Relocatee does not own furniture]

$15 per room up to a maximum of $300

MOBILE HOME MOVING SCHEDULE
[Based upon total floor area]

Amount of Payment	Square Foot Area
$100	Up to 200 sq. ft.
$200	201 sq. ft. – 600 sq. ft.
$300	More than 600 sq. ft.

In addition to the moving payment based on a room count or mobile home square-foot area, a dislocation allowance of $200 will be paid.

BUSINESS, FARM & NONPROFIT ORGANIZATION MOVING EXPENSES

Displaced businesses, farm operations and nonprofit organizations in occupancy at the start of negotiations for the property are entitled to receive actual reasonable moving expenses for moving personal property a distance not to exceed a 50-mile radius or to the nearest available and adequate site. The actual and reasonable cost of searching for a replacement location may be claimed up to $500 for a farm or business and up to $100 for advertising sign companies. Such payments must be supported by receipted bills or other evidence of expenses incurred.

As an alternate moving expense procedure, in the case of a self move, the business, farm operation or nonprofit organization may be paid an amount not to exceed the lower of two estimates secured by the State Highway Division from competent moving companies.

Under certain conditions, businesses, farms, and nonprofit organizations may receive payments for direct losses of tangible personal property resulting from the necessity to relocate.

In lieu of moving expense payments, a displaced or discontinued business or farm operation, except advertising sign owners, may, under certain conditions, elect to receive an amount equal to the average annual net earnings of the business or farm operation during the two tax years immediately preceding the year in which such business or farm operation is displaced. The payment cannot exceed $10,000 and will not be less than $2,500. Those who choose the "in lieu" payment are not eligible for any other relocation benefit payment.

STORAGE OF PERSONAL PROPERTY

Occasionally, unusual circumstances may make the storage of personal property mutually beneficial to the displaced owner and the State. The cost of such storage may qualify for a payment in addition to the actual moving expense payments. It should be clearly understood that those dislocatees accepting the schedule or in lieu moving expense payment are not eligible to receive the storage expense benefit. This additional benefit requires the written approval from the State Highway Division and may not exceed twelve months.

REPLACEMENT HOUSING

A displaced owner-occupant of a dwelling actually owned and occupied by the owner for 180 days or more immediately prior to the initiation of negotiation for such property may be eligible for additional payments, the combined total of which may not exceed $15,000.

The replacement housing payment is the amount, if any, when added to the amount for which the State acquired his dwelling, equals the actual cost which the owner is required to pay for a decent, safe and sanitary replacement dwelling or the amount determined by the State as necessary to purchase a comparable dwelling, whichever is less. Also, to compensate the owner for increased interest costs he is required to pay for financing the replacement dwelling and for the actual closing costs incidental to the purchase of replacement housing.

A displaced owner-occupant of a dwelling actually owned and occupied by the owner for 90 days or more but less than 180 days or a tenant-occupant of 90 days or more immediately prior to initiation of negotiation for such property may be eligible for additional payments, the combined total of which may not exceed $4,000. This payment is the amount necessary to make a down payment on the purchase of a replacement dwelling and to reimburse the relocatee for the actual closing costs incidental to the purchase of the replacement dwelling. Necessary deposits for taxes and insurance are not considered as closing costs. In those cases where an owner-occupant of 90 days or more but less than 180 days or the tenant-occupant of 90 days or more chooses to rent instead of purchasing a replacement dwelling, he may, under certain conditions, become eligible for a payment up to $4,000 to enable him to rent a decent, safe and sanitary replacement dwelling.

The rent payment is the increase in rent necessary to rent a comparable dwelling for 48 months or the amount determined by the State as necessary to rent a comparable dwelling for 48 months, whichever is less.

To be eligible for these benefits, the displaced occupant must occupy a decent, safe and sanitary replacement dwelling within one year subsequent to the required date of displacement from the dwelling unit acquired by the State Highway Division.

Upon request by the displacee a preliminary determination of any of the above benefits will be calculated and presented to the displacee.

Claims for housing additives and rent supplements must be made in writing on a State Highway Division form supplied for this purpose and must be filed with the State Highway Division no later than 18 months after the date of displacement or six months after final adjudication of a condemnation case.

Before payments for any replacement dwelling benefits can be made, the replacement dwelling must be checked by State Highway Division personnel to ascertain that it meets the decent, safe and sanitary standards established by the Federal Department of Transportation. We advise that you have this determination made prior to making a commitment to rent or buy.

POSSESSION

No person lawfully occupying real property shall be required to move from his home, farm or business location without at least 90 days written notice. This notice will not be issued prior to the State having control of the property.

APPEALS

Any relocatee who is dissatisfied with any ruling on his eligibility or claim for any relocation benefit payment shall have the right of appeal. Appeal forms can be secured from the right of way agent who is handling the property acquisition. The Chief Administrative Officer of the Highway Division has designated the Condemnation Supervisor and the Right of Way Engineer of the Highway Division as an appeals board. Appeals must be filed with the board within one year after the date of displacement.

Any person making such an appeal will be given full opportunity to be heard at an appeal hearing arranged to examine his complaint. A prompt decision will be provided giving reasons in support of the result reached.

Appellants who are dissatisfied with the decision of the appeals board may make a final appeal, in writing, to the Administrator of the Highway Division in Salem.

RIGHT OF WAY AGENT

Relocatees will be given detailed information regarding their eligibility and possible benefits by the right of way agent assigned to acquire the property.

81-734-3772
Rev. 8-1-75

1970 RELOCATION ACT -- MONETARY BENEFITS

RESIDENTIAL				BUSINESS & FARM	
Owner-occupant of 180 days or more prior to initiation of negotiations for the parcel.		Owner-occupant of 90 days or more but less than 180 days and tenant-occupants of 90 days or more occupancy prior to initiation of negotiations for the parcel.		Owner-occupants and tenant-occupants entitled to same benefits. Must occupy at initiation of negotiations for the parcel.	
Housing Additive	$15,000 maximum	Rent Supplement	$4,000 maximum	Actual reasonable moving costs	Actual
Including		Or		Or	
Costs incidental to purchase of replacement dwelling		Down payment benefit and costs incidental to purchase of replacement dwelling	$4,000 maximum	Negotiated moving cost payment not to exceed lower of two estimates secured by agency	No more than low estimate
And including		Plus		Plus	
Increased interest cost on replacement dwelling		Actual reasonable moving costs	Actual	Tangible personal property loss due to relocation	Actual value or estimated cost to move, whichever is lower
Or		Or		Plus	
Rent Supplement	$4,000 maximum	Moving costs based upon schedule	$ 500 maximum	Reasonable cost of search for new site	$500 maximum $100 maximum for sign companies
Plus		Or		Plus	
Actual reasonable moving costs	Actual	Storage of personal property up to twelve months, if necessary	Actual	Storage of personal property up to twelve months, when necessary	Actual
Or				Or	
Moving costs based upon schedule	$ 500 maximum			Payment "In lieu" of all other benefits--requires approval of agency	Average of net earnings for two years prior to year of relocation $2,500 minimum $10,000 maximum
Or					
Storage of personal property up to twelve months, when necessary	Actual				

ACQUIRING LAND FOR HIGHWAYS

A description of the Highway Division's land acquisition program

OREGON
STATE
HIGHWAY
DIVISION

The continuing and increasing demand for expanded highway facilities in Oregon imposes upon the Highway Division the difficult task of acquiring land to meet this need. It is the aim and desire of the Division to obtain these necessary rights-of-way with fairness and equity to all.

The State is empowered to acquire private property for public use in order to provide the greatest good for the greatest number. With this power goes the obligation to protect the rights of the individual property owner. The Highway Division thus has a dual responsibility—recognition and protection of the individuals who are affected by acquisition of land and competent and efficient service to the public.

PUBLIC HEARINGS

Public hearings, when requested, are held during the location and design stages of a project. Such hearings afford each person or agency full opportunity for effective public participation to ensure that highway locations and designs are consistent with federal, State, and local goals and objectives.

The first hearing is held after preliminary studies have been made on several possible corridor routes. The data gathered in the studies is presented at a "Corridor Hearing". During the course of the hearing, testimony from interested persons is recorded for study by Highway Division personnel and the Oregon Transportation Commission.

Upon selection of a corridor location by the Transportation Commission, a detailed survey within that corridor is made and a preliminary design plan developed for later presentation at a "Design Hearing". During the course of the survey, a Liaison Agent attempts to interview all property owners affected concerning the effect the proposed highway has on their ownerships.

The holding of "Design Hearings" provides all interested persons and public agencies an opportunity to present testimony for consideration of final highway design.

In an instance where a choice of corridors is not involved, such as in the case of an improvement project on an existing highway, a single "Combination Corridor - Design Hearing" may be held.

After all data and testimony have been studied, a final design is adopted by the Transportation Commission and the acquisition of necessary

rights-of-way is authorized. The parcels of property needed for the improvement will be described, and the right-of-way acquisition activities can commence.

APPRAISAL PROCEDURE

Highway Division appraisal procedures, which are designed to protect both the property owner and the taxpayer's dollar, call for an appraisal of every parcel of right-of-way. These appraisals are performed by a staff appraiser, a professional fee appraiser, or both. When business and commercial properties are involved, more appraisers may be assigned. The property owner or his designated representative will be given an opportunity to accompany the appraiser during his inspection of the property.

The appraisers consider every indicator of value. Their differences in findings, if any, are studied and reconciled. The results are checked by the Highway Division Right of Way officials and then approved for acquisition.

This thoroughness, plus the busy work schedules of the professional fee appraisers, explains the occasional delays between the time of the appraisal and the arrival of the Right of Way Agent.

THE RIGHT OF WAY AGENT

The Right of Way Agent who calls on the property owner has studied the appraisal and can illustrate with maps and other data how the right-of-way will affect the property. The Agent has been authorized to recommend a price and obtain an option to purchase the property, which option is subject to approval of his supervisors and the Oregon Transportation Commission. It should be noted that the Agent is unable, under the procedures governing him, to engage in "horse trading"; he is confined to those monetary values indicated by appraisal.

It is desirable to complete acquisition and transfer as soon as possible, but not at the expense of the owner's thoughtful consideration of the State's proposal.

MARKET VALUE

Before the initiation of negotiations for real property, the Highway Division will establish an amount which is believed to be just compensation and will make a prompt offer to acquire the property for the full amount so established. In no event will the

amount be less than the approved appraisal of the fair cash market value of the property. Fair cash market value may be defined as the price a willing buyer would pay for a property offered by a willing seller with neither party having any obligation to either buy or sell. This is known as the "willing buyer - willing seller" concept and is the basis for "market value".

In instances in which only a portion of a property is to be acquired, the compensation is based on either the value of the land taken and damages to the remainder, if any, or the "before-and-after" method. This means that the owner's loss is equal to the difference in the market value of his property before the State's acquisition and its market value immediately thereafter.

Any decrease or increase in the fair cash market value of the real property prior to the date of valuation caused by the public improvement for which the property is acquired, or by the likelihood that the property would be acquired for such improvement other than that due to physical deterioration within the reasonable control of the owner, will be disregarded in determining the compensation for the property.

Property damage payments, under Oregon law, can be made only to those persons whose property is actually purchased or used by the State Highway Division.

MOVING IMPROVEMENTS

The law states that the property owner is entitled to money for his property; however, if he wishes to have his house or buildings moved, this may be done provided certain conditions are met.

The property owner must agree to such a move, and the total cost to the State must be less than a cash purchase.

The property owner must make his own arrangements for moving the building. The State is not able to undertake the work nor to contract the work for the owner.

PAYMENT

An understanding of the processing of a signed agreement and the payment by check will alleviate some of the concern about a seemingly delayed payment.

The option agreement must be approved by the Oregon Transportation Commission. After approval has been received, the property owner is notified of

acceptance and conveyance of the title and payment may proceed. No payment of State funds may be made until a warranty deed conveying clear title has been recorded in the appropriate County records.

Any encumbrances to the title, such as unpaid taxes, assessments, mortgages, outstanding leases, or the like, must be cleared by releases prior to preparation of a voucher. At the time the deed is available for recording, a voucher is prepared and forwarded to the Highway Division Controller for preparation of a check in payment for the property. Under normal circumstances, in which no cloud obscures the title, about four weeks elapse between the time a deed is received from the property owner and the time a check is mailed to him.

No person lawfully occupying real property shall be required to move from his home, farm or business location without at least 90 days' written notice. This notice will not be issued prior to the State's purchase of the property; however, in no event will an owner-occupant be required to surrender possession prior to receiving payment. In the event the property owner is unable to convey and clear title satisfactorily to the State, or in the event the State and the property owner cannot reach a mutually-satisfactory agreement, a condemnation action will be filed and the amount established by the State as just compensation will be deposited with the court for distribution in accordance with the order of the court.

POSSESSION

At the time negotiations are commenced with a property owner, all tenants on the property as well as the owner will be notified in writing that it is the intent of the Highway Division to acquire the property and give the requirements for eligibility for relocation benefits.

The Division is aware of the need of a reasonable time for relocation. If a property is not needed for several months, continued occupancy may be permitted at a reasonable rental through the Regional Property Agent.

EMINENT DOMAIN

The property owner need not accept the State's offer or enter into an agreement he feels to be unfair. A refusal is simply a case of disagreement between the two parties on the value of the property. The Highway Division, in the expenditure of public funds, is restricted to competent appraisals in ascertaining fair cash market value.

The Division is ready and willing to reconsider its position in light of any new evidence of value presented by the owner, including a documented professional appraisal procured by the owner.

Only in the event the parties are unable to agree as to the compensation to be paid, or the owner cannot clear title, will a condemnation suit be filed. Time for an extended discussion on some projects may not be available if the State and the highway users are to avoid the loss of considerable money due to any delay in a project. Discussions can, of course, continue even after a suit is filed. The filing of the suit permits the State, under Oregon law, to authorize the contractor to enter on the property.

RIGHT OF WAY OFFICES

For the service and convenience of those affected by highway activities, the State Highway Division maintains fully-staffed Regional Right of Way Offices at the following locations:

5821 NE Glisan Street
Portland 97213
Telephone No.
238-8215

9200 McLoughlin Blvd.
Portland 97202
Telephone No.
653-3116

2960 State Street
Salem 97310
Telephone No.
378-2641

1523 SE Cobb Street
Roseburg 97470
Telephone No.
672-6541, Ext. 226

North The Dalles-
California Highway
Bend 97701
Telephone No.
382-1911, Ext. 38

1102 "K" Street
LaGrande 97850
Telephone No.
963-8646

Persons having questions concerning right-of-way matters are encouraged to contact the nearest Regional Office.

QUESTIONS AND ANSWERS

ACQUISITION

1. What authority does the Right of Way Agent have in acquiring the property?

   The Agent has authority to attempt to agree as to price and to submit his recommendation for presentation to the Oregon Transportation Commission.

2. Can the Right of Way Agent make a formal offer for the property?

   No, he cannot. Only the Transportation Commission or its designated representative has authority to make an offer. The Agent may recommend a price for the necessary parcel.

3. Is earnest money received if an option is signed?

   No. If the option is accepted by the Commission, the amount involved is mailed after the processing of the option.

4. What courses does the property owner have if negotiations fail?

   He has the right to have a jury hear the case and make an award.

PAYMENT

1. Who prepares the deed and clears the title?

   The Salem Right of Way Office of the State Highway Division prepares and records most of the documents necessary to convey clear title; however, it is the property owner's obligation to secure signatures on any documents which may be necessary to provide clear title.

   The State orders and pays for title insurance unless other arrangements are made.

2. How does the property owner know the State will fulfill its obligation?

   The option approved by the Transportation Commission remains a binding contract even after the deed is signed. The State is bound by this agreement as to its own obligations; and, by the same token, it cannot exceed the authority contained therein.

3. Can the property owner rent or buy buildings?

   Unless other specific arrangements are made, buildings will be sold at public auction after proper notification in the newspapers. All sales and rentals are handled by the Regional Property Agent.

CONSTRUCTION FEATURES

1. Why is new right-of-way necessary? Why can't the present highway be rebuilt?

   The standards of the new Federal-aid highways, as established by the State and the Federal Highway Administration, are such that rebuilding many of the present highways to meet these standards is not economically sound. In addition, most of these existing highways will be needed to assist the freeways in carrying the heavy volume of traffic. In some cases, the present improved highway is to be used as two of the four lanes of the new freeway.

2. Who determines the necessity, location, width of rights-of-way, access control, and schedule of construction for new State highways?

   The Oregon Transportation Commission, upon recommendation of the Administrator and State Highway Engineer, and the Federal Highway Administration when required.

VALUE

1. How does the State arrive at the value of the property?

   Real estate appraisals are prepared and submitted by staff or fee appraisers, or both.

   A staff appraisal is one which is prepared by an employee of the Highway Division who is qualified by education, training, and experience to make property appraisals.

   A fee appraisal is one prepared by a professional appraiser who is employed for a particular job. He is not a State employee, but an independent appraiser whose services are generally available to anyone wishing to retain him.

2. How about the appraiser the property owner hires?

   The Division will gladly examine with open mind the appraisal prepared for the owner. If it is a fully-documented appraisal, the State review staff is authorized to give it the same consideration as those prepared for the State.

81-734-3773
Rev. 3-1-75

ROBERT W. STRAUB
GOVERNOR

Department of Transportation
STATE HISTORIC PRESERVATION OFFICE
Parks and Recreation Branch
525 TRADE STREET S.E., SALEM, OREGON 97310

DATE: December 30, 1977

Pieter Dykman
Environmental Section
412 DOT Building
Salem, OR 97310

RE: Progress Interchange Off-ramp at Scholls Ferry Road, Beaverton-Tigard Highway, Washington County

Dear Sirs:

This letter is in response to the cultural resource survey carried out to assess impact of the above mentioned project on historic and archeologic sites.

After a careful review of the cultural resource survey carried out within the project area, our office can offer the following comments. We feel that no cultural resources of National Register potential have been identified which are likely to be impacted by this project. We therefore feel that Public Law 89-665 and Executive Order 11593 have been complied with and the project may go forward as planned.

Thank you for your cooperation and concern.

Sincerely,

David G. Talbot
State Historic Preservation Officer
Historic Preservation Office

EL:ko

8952

144

STATE OF OREGON

INTEROFFICE MEMO

DATE: November 15, 1977

TO: J. H. Versteeg
Head of Engineering

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Railroad Interconnect
Progress Off-Ramp
Beaverton-Tigard Hwy.

Attn: D. O. Christensen

The design plans for the above connection indicate that the distance between the railroad tracks and the relocated frontage road will be 230 feet.

The "Manual on Uniform Traffic Control Devices for Streets and Highways" does not recommend interconnecting the signals with the railroad when the distance is greater than 200 feet.

L. E. George
Traffic Engineer Supervisor

WRZ:rw

REFERRED TO

Beard, Dorn, Cole, Semple, Watson, Eriksen, Leu, Heger

Return / Discuss / Do / File Copy / Due

BY FINAL DESIGN ENGINEER

Versteeg, Christensen, George, Olson, Terpin, Sullivan, Scott, Savage

RECEIVED
NOV 17 1977
ENGINEERING SECTION

Trout

Do Not File
Return To
Bring Up ___/___/___
Action

81-125-1307

8952

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem, Oregon 97308

DATE: October 26, 1977

In reply refer to: HEC.3-OR

SUBJECT: Oregon Project M-9234(1)
Progress Interchange Off-Ramp
Draft Negative Declaration

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer
Salem, Oregon

Attached is a copy of the subject declaration which I have concurred in. The original document has been forwarded directly to Mr. Gary Potter in the Environmental Section.

G. L. Green

Attachment

cc:
C. Laux, Proj Mgmt
G. Potter, Env Sec

NOTED
E. S. HUNTER

RECEIVED
TECHNICAL SERVICES
OCT 26 '77
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

RECEIVED
STATE HWY ENGR
OCT 26 '77
REFER TO
Hunter
FOR
Info | Inves | R/D | D/R | Sign | Act | File

2752

FAUS-9234

Narrative Report

Progress Interchange Off Ramp
Beaverton-Tigard and Scholls Highways
Washington County Prefix: 134-1930
R. R. Cameron August, 1977
Resident Engineer

The purpose of this project is to provide an off ramp for southbound traffic on the Beaverton-Tigard Highway to the Scholls Highway.

It is necessary to move the existing frontage road to make room for the off ramp, creating an additional intersection with the Scholls Highway. Cascade Street also intersects Scholls West of the proposed new intersection, so it was determined to relocate both the frontage road and Cascade Street to a common intersection.

Both the ramp terminal intersection and the new intersection of the frontage road and Cascade Street with Scholls are to be signalized. These signals should be tied in to the nearby railroad crossing gates and signals.

Right-of-way will be required from two owners on the north at Scholls and from one owner on the south.

A headlight barrier will be required between the frontage road and the proposed off ramp.

A retaining wall between the two roads will also be required.

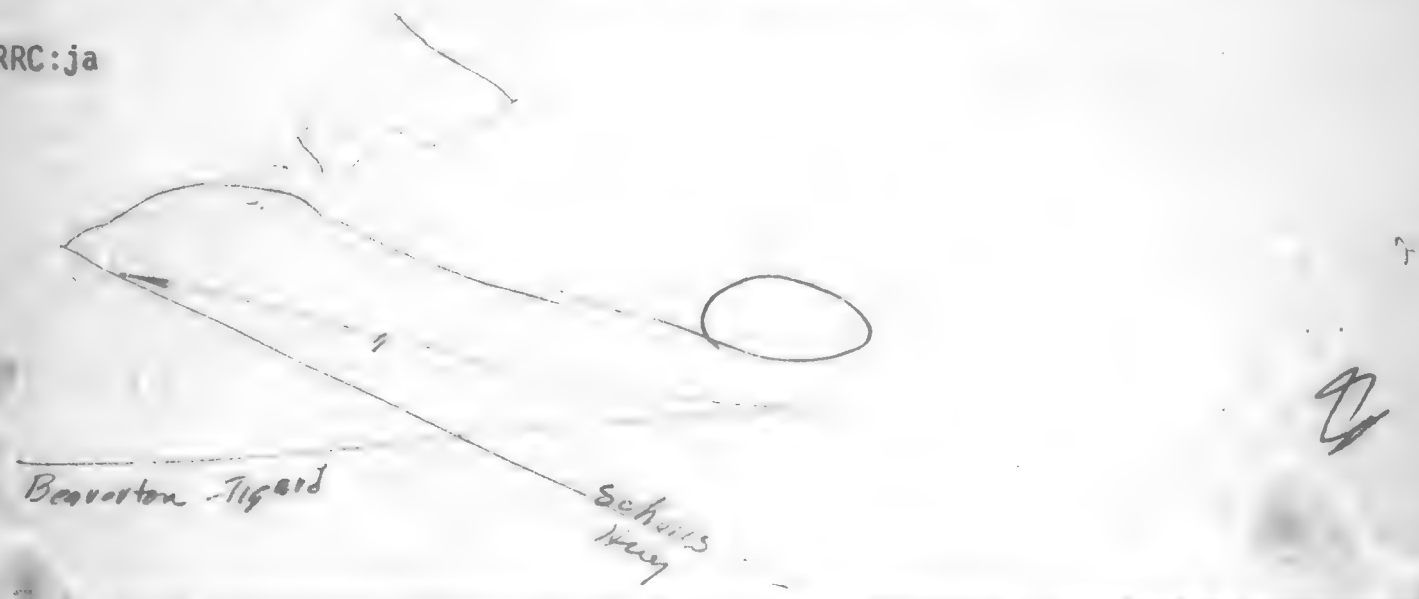
A concrete shoulder barrier is needed along the frontage road to protect a nearby building from traffic.

Washington County has indicated that they will accept the frontage road for maintenance after construction, so a cul-de-sac is included to comply with Washington County standard practice.

Is 40' R/W ok with County? May be all we can get

Existing utilities have been located and shown on the detail map.

RRC:ja



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7-13-77

MEMO TO FILE

FROM BOTHMAN

Progress Interchange Ramp - Final alternative design needs to be established for the frontage road. The neg dec is two weeks from completion once this decision is established this week; the project should be ready for transmittal to Salem by August 1.

Right-of-way acquisition has been simplified by the new design. The schedule needs to be reviewed in order to facilitate completion of this project in the 1978 construction season.

1-10-7

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.: M-9234(1)

STATE PROJECT NO.: See below

COUNTY NAME: Washington

PROGRAM NO.:

ITEM NO.: 71436

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green, Div. Administrator
Salem, Oregon

TO:
Mr. H. S. Coulter
State Highwy Engineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
JAN 14 '77
REFER TO
Rubins
FOR
Info | Invest | R/D | D/R | Sign | Act | File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	1-10-77	FAU 9234	Secondary Rt. 143

GENERAL LOCATION:
"Progress Interchange Off Ramp Section"

GENERAL DESCRIPTION OF WORK:
Preliminary Engineering

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☒ OTHER (Specify) All phases of PE necessary obtain a final negative declaration TEC $10,000 FF $8,580.

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
1-10-77	D. K. Hammer for	Division Administrator

FORM PR 1240 (REV. 6-72) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U. S. GOVERNMENT PRINTING OFFICE: 1973—514-000

8952

144

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon 97310

December 29, 1976

FILE:

FROM: L. E. George
Traffic Engineer

TO: J. H. Versteeg
Road Design Engineer

Attention: D. N. Stoudenmeyer
Preliminary Design Engineer

SUBJECT: Proposed Off-Ramp
Progress Interchange
Beaverton-Tigard Hwy.
Washington County

We have reviewed the preliminary plans for the above named project. There is one item which warrants further consideration.

The off-ramp to Scholls Ferry Road should be wide enough to allow for two lanes for a distance of at least 100 feet. Two lanes for 500 feet would be a more desirable situation because heavy seasonal traffic (Christmas, etc.) may cause the ramp to back up onto the highway without adequate storage for left-turning vehicles.

L. E. George
Traffic Engineer

SRW:rj

Standard sheet revised to provide 500' of 2 lane ramp. DNS

1 Versteeg
L Olson
Christenson
Scott
Swenson
Savage
Trout

RECEIVED
JAN 0 3 1977
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up
Other

8952

RRO 6-2

December 14, 1976

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM L. W. Rullen
Program Management Engineer

SUBJECT Project Data Submission
Item No. 71436
Project No. M-9234(1)
Progress Interchange Off-Ramp
Washington County

Attached is data for the subject project.

This project has been originated by local officials and concurred in by the Oregon Transportation Commission and the State Highway Division.

We request authorization to proceed with all phases of preliminary engineering to obtain an approved final negative [illegible] at an estimated total cost of $10,000 with federal funds of [illegible].

Clajt
Att.

cc: R. N. [illegible]n, Metro
D. F. [illegible]
G. E. [illegible]ar

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. O.

FORM PR-1 (REV. 4-61)

FEDERAL-AID PROGRAM DATA

December 14, 1976

CARD															
CARD 2	REPORT NUMBER (19)(20)	PROJECT LOCATION (45 typewriter spaces) 21 SR 210, 0.5 mi. S.W. of Progress 60	ADT	PRESENT __*	FUTURE 2,900 (69)(70)	YEAR 96 (71)(72)	REGION 10	STATE NAME Oregon							
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28 Preliminary Engineering 62	NATL. FOREST (63)(65)	FH ROUTE NO. (66)(69)	SUPV AGCY (69)	DA CLASS'N (70)	DA AREA (71)	EMERG. YR. (72)(73)	PL. AUTH YR (74)(75)	PROJECT NUMBER PREFIX LETTER(S) M- (14)(15)	NUMBER 9234 (15)(17)					
CARD 4	CLASS OF FEDERAL FUNDS Urban System	NAME OF URBAN AREA (17-31) Portland	COUNTY NAME Washington	ROUTE NO. U	FEDERAL-AID 9234 (42)	STATE 143 (36)(37)	U.S. –								

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS
1	(14-18)	(19)	41	42	43 46	53		(54)(58)	(60) (66)	(67) (73)		
5 1					PE			0.19	15,000	12,870	2,130	
5 3					ROW							
5 5					CONST (CODE)		"Progress Interchange Off-Ramp Section"					
					PROJECT TOTALS			0.19	15,000	12,870	2,130	

CARD 1	CODE 1	PREPARED BY CL
1	14	PROGRAM APPROVAL DATES

(110) (33)(34) (35) REMARKS

*No existing facility.

FORM PR-1 (REV. 4-61)

FEDERAL-AID PROGRAM DATA

December 14, 1976

CT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
210, 0.5 mi. S.W. of Progress	ADT	—*	2,900	96	10	Oregon	41	W36	71436

ORK (35 typewriter	NATL. FOREST	FH ROUTE NO.	SUFF. AGCY	DA CLASIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST MI.	DESIG.
eering								M-	9234	(1)		

	COUNTY NAME	CODE	PROGRAM STAGE
Urban System	Washington	067	1 OR 2
Portland	ROUTE NO. U — FEDERAL-AID 923[illegible] — STATE 143 — U.S. --		

ORK TYPE	STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
			0.19	15,000	12,870	2,130		
OW								
NST DE)		"Progress Interchange Off-Ramp Section"						
CL	PROJECT TOTALS		0.19	15,000	12,870	2,130		

OVAL DATES

REMARKS

*No existing facility.

-over-

Progress Interchange Off-Ramp Section

Project No. M-9234(1)

Existing Facility: No existing southbound off-ramp.

Progress Interchange consists of northbound off-ramp from the Beaverton-Tigard Hwy. to Scholls Hwy. (FAU 9234) and a southbound on-ramp from Scholls Hwy. to the Beaverton-Tigard Hwy.

Adjacent Sections:

N.E. End---Connects with the Beaverton-Tigard Hwy., FAP 79, which consists of four 12' lanes, 16' median, and 10' shoulders.

S.W. End---Connects with Scholls Ferry Hwy., FAU 9234, which consists of four 12' lanes, 4' median and 10' shoulders.

Project Data: Work under this project consists of preliminary engineering all phases for the future construction of a southbound off-ramp from the Beaverton-Tigard Hwy. to the Scholls Hwy. (FAU 9234) at the Progress Interchange.

System Action, Airports, Railroads, Water Developments, Historical and Recreational Areas: None involved.

FHPM 7-7-2 Requirements: Major action project requiring the preparation of a Negative Declaration concurred in by FHWA on August 25, 1976.

IM 50-1-70 Requirements:

(1) State Clearinghouse - A-95 review letter of approved dated October 13, 1976.

(2) District 2 Clearinghouse - Included in approved CRAG TIP program.

FHPM 7-7-5 R

(a) Pu

(b) Lo

Data for PR-

Prelim

NOTE: (1) T

(2) T
E

ramp from the
and a south-
-Tigard Hwy.

y., FAP 79,
median, and

9234, which
and 10' shoulders.

eliminary engi-
struction of a south-
ard Hwy. to the
ss Interchange.

ts, Historical and

ring the preparation
gust 25, 1976.

f approved dated

rcved CRAG TIP program.

FHPM 7-7-5 Requirements:

(a) Public Hearings - Will be offered and held if requested.

(b) Location/Design - Approval will be requested under separate action.

Data for PR-37:

Preliminary Engineering	- Field Work	$10,000
	PS&E Preparation	5,000
	TOTAL	$15,000

NOTE: (1) This project is in Congressional District No. 1.

(2) This project is included in the CRAG FY 77 TIP Annual Element.

8752

FAUS

ROBERT W. STRAUB
GOVERNOR

P. B. KLASOS
Administrator and
State Highway Engineer

OREGON STATE HIGHWAY DIVISION

HIGHWAY BUILDING • SALEM, OREGON • 97310

November 30, 1976

PROJECT MANAGEMENT
NOV 30 '76
REFER TO Gary
FOR
Info | Investigate | R/D | Action ✓ | File | Letter | See me

TO: L. W. Rulien
Program Management Engineer

Attention: Gary E. Zehner
Local Projects Coordinator

SUBJECT: Traffic Signal Warrant
Beaverton-Tigard Highway No. 144
Proposed Off-Ramp to Scholls Highway
M.P. 4.27

This project proposed the construction of an off-ramp from the southbound lanes of the Beaverton-Tigard Highway to the Scholls Highway. The study conducted was to determine if a signal was warranted at the termination of this new ramp. Because of the absence of ramp traffic, the major source of data was taken from the 1975 Traffic Volume Tables on the existing Scholls Highway overcrossing.

To determine the eighth highest volume, 5.4 percent of the average daily traffic was used. Using this and the 1975 volumes, a major street volume of 530 vehicles for the eighth hour was found. This would meet the Interruption of Continuous Traffic (Warrant 2), assuming that the 85 percent speed on the major street was 40 MPH or greater.

With the presence of a major shopping center, the volumes for the new southbound off-ramp should reach 53 vehicles per hour or greater for at least eight continuous hours. This count, along with the estimated count on the Scholls Highway, indicates that a signal will be necessary to move traffic in an orderly manner. It is, therefore, recommended that a signal be installed at the termination of the proposed southbound off-ramp at the Progress Interchange on the Beaverton-Tigard Highway.

Very truly yours,

L. E. George
Traffic Engineer

Hopkins
Harvey H.
Holmes
Prange
Unsain

RECEIVED
DEC 1 - 1976
COUNTY
CITY
WB:ds
UNIT

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up ___/___/___
Other

Form 81-734-3122

5/15/75

~~Dwayne~~ - Please do.
W. ''
Unit # 144

FEDERAL AID URBAN SYSTEM PROJECT REQUEST

NOTED
R.D. TRYGSTAD

NOTE: This form is intended to collect general information for proposed projects so that the State and Federal Highway Administration will have a better understanding of the requested project. Please use the footnote area to answer any ambiguous questions or to explain any unusual conditions.

Date March 8, 1976

Applicant Agency Oregon Department of Transportation

Federal Aid System Route No. 144 Route Name Beaverton-Tigard

Project Name Progress Interchange Off-Ramp to Scholls Ferry Road

Project Length 1000 feet Project Location (Attached sketch map)

Project Description Construct an off-ramp from the south bound lanes of the Beaverton-Tigard Highway to Scholls Ferry Road. Relocate existing frontage road connection to Scholls Ferry Road. Revise existing traffic signal and construct one new traffic signal.

Average Daily Traffic 2800 Design Speed ~~35~~ MPH

RECEIVED
COUNTY & CITY SECTION
OCT 22 1976
☐ ENGR. ☐ CGOR. ☑ DE ☐ AE ☐ DE
☑ RPE ☐ CE ☐ RE ☑ RPE ☐

Complete Applicable Sections:

I. ROADWAY DATA

1. Existing Roadway: (Attach sketch)

Width 0 Travel Lanes 0 Shoulders 0
Medians Parking
Sidewalks
Other

2. Desired Roadway Cross Section: (Attach sketch)

Width 26 Travel Lanes 16 Shoulders 4' lt. & 6' rt.
Medians 0 Parking 0
Curbed Length Curb Radii
Sidewalk/Bikeway
Other

FOOTNOTES: Also included, a curbed two-way frontage road with 12 foot travel lanes and four foot shoulders.

Description of Proposed Roadway Work Grading, paving, signing and signal installation.

Hopkins
Harwell
Holmes
Prange
Unrein

RECEIVED
DEC 1 - 1976
COUNTY
CITY
UNIT

Requires Reply ☐
Requires Approval ☐
Routine Keep ☐
Do Not File ☐
Return To
Bring Up NOTED
Other DWAYNE HOFSTETTER

II. RIGHT-OF-WAY DATA

1. Existing Right-of-Way:

General Width N/A Minimum _____ Maximum _____

2. Will Additional Right-of-Way Be Needed? Yes Explain This is a new project

3. Will cost of additional right-of-way be included in project or will applicant acquire without cost to project? Yes

4. Will applicant acquire right-of-way and have State review negotiations?
Yes _____ No X

5. Should State negotiate and acquire right-of-way in behalf of applicant?

6. Should State prepare options? Yes X No _____

7. Is a public hearing necessary? Yes
(NOTE: If additional right-of-way is needed, or the improvement would have an adverse effect upon abutting real property, or if the layout or function of the facility or connecting streets or roads would be changed, an opportunity for a hearing must be afforded.)

8. Will there be any persons displaced from their homes, farms or business?
Yes If so, explain One house and one business.
(NOTE: No property owner shall be required to move from his home, farm, or business without at least 90 days' written notice prior to the intended vacation date.)

9. Will this project affect any park or recreation facility? No
If so, explain _____

III. TRAFFIC CONTROL DATA

1. Existing Signalization: Frontage road at Scholls Ferry Road.

2. Proposed Signalization:

Location Off-ramp & Scholls Ferry Road and frontage road & Scholls Ferry Road
Type Overhead - 5 heads each
Phases 3
Type of Suspension Wire

Interconnected These two signals will interconnect. The present interconnection with other signals on Schools Ferry Road will be severed

FOOTNOTES:

3. Permanent Signing:

Include in project or by applicant? Included

4. Permanent Striping:

Include in project or by applicant? Included

IV. ILLUMINATION DATA

1. Present Illumination and Location: None

2. Proposed Illumination:

Location None
Type

V. STRUCTURE DATA

1. Existing Structure:

Location N/A
Type
Size
To Remain in Place?

2. Proposed Structure:

Location N/A

Is a particular type of structure and design desired?

Approximate size of proposed structure

Are sidewalk/bikeways desired?

Are any utilities to be attached to structure?_____

FOOTNOTES:_____

Are provisions for illumination desired?_____

Are there any unusual or complicating conditions?_____

VI. RAILROAD DATA

1. Are there any railroad crossings? No Location_____

Type of existing crossing_____
Existing crossing protection_____

Name of Railroad_____
Number of tracks: Mainline_____ Siding_____ Total_____
Angle of Intersection_____
Sight distance: (Direction)_____ Distance_____
(Direction)_____ Distance_____
Number of Trains: Passenger_____ Speed_____
Freight_____ Speed_____

2. Will existing railroad crossing be altered?_____

VII. ACTION PLAN REQUIREMENTS

During project development for Category 1, 2, and 3 projects, the city or county shall perform and document responsibilities as found indexed on pages 51 and 52 of the Oregon Action Plan, particularly Citizen Involvement and Participation; Environmental Aspects; and Public Hearing Requirements.

The OSHD Region Engineer will provide assistance, liaison and monitoring for these activities.

Responsible local office and party to be contacted for the following activities:

1. Citizen Involvement _____ Office
2. Environmental _____ Office
3. Public Hearing _____ Office

REMARKS: _____

VIII. GENERAL INFORMATION

1. Other work or conditions not covered by preceding sections _____

2. Does the applicant desire to perform the project preliminary engineering?
Yes ___X___ No _____

Does the applicant desire to perform the project construction engineering?
Yes ___X___ No _____

(NOTE: Utilization of local forces to perform preliminary and construction engineering requires the prior approval of the State and Federal Highway Administration. In all instances, State will prepare final plans, advertise, and award project contracts.)

3. Applicant's Estimate of Cost for Requested Project:

Roadway Work	$ 163,000
Right-of-Way Costs (if participating)	96,000
Traffic Control	86,000
Illumination	0
Structures	0
Railroad	0
Other _____	0
Preliminary Engineering	5,000
PROJECT TOTAL	$ 350.000

FOOTNOTES: _____

THIS APPLICATION IS AN OFFICIAL REQUEST FROM:

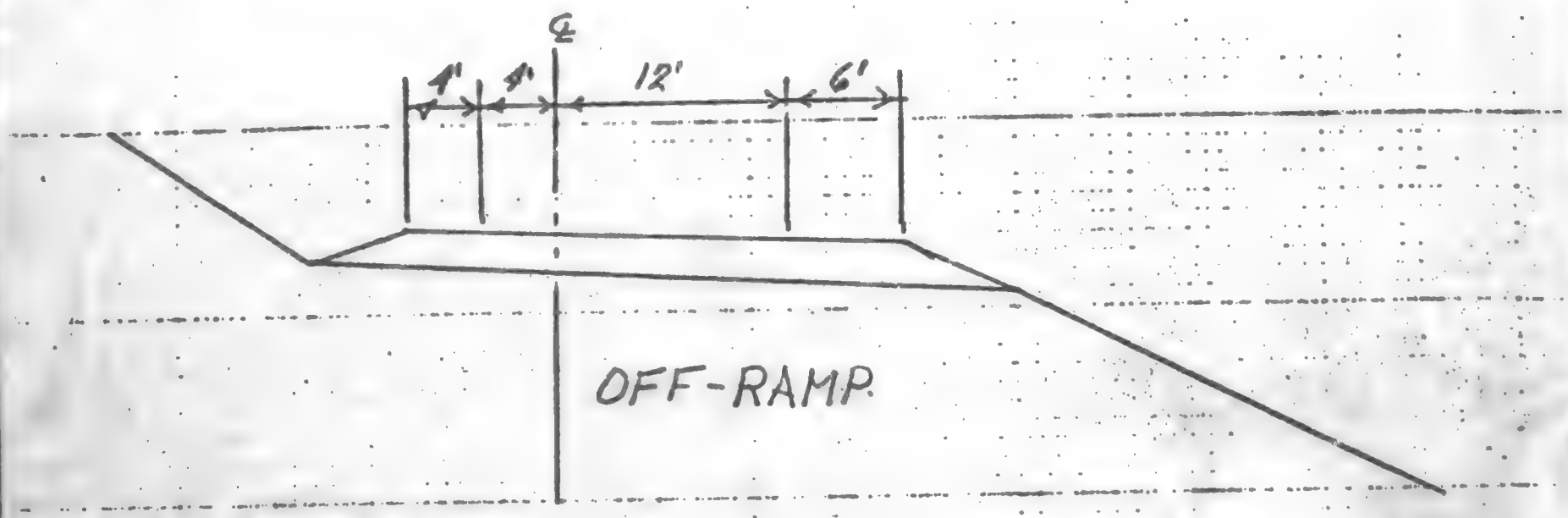
City of _____ and/or _____ County

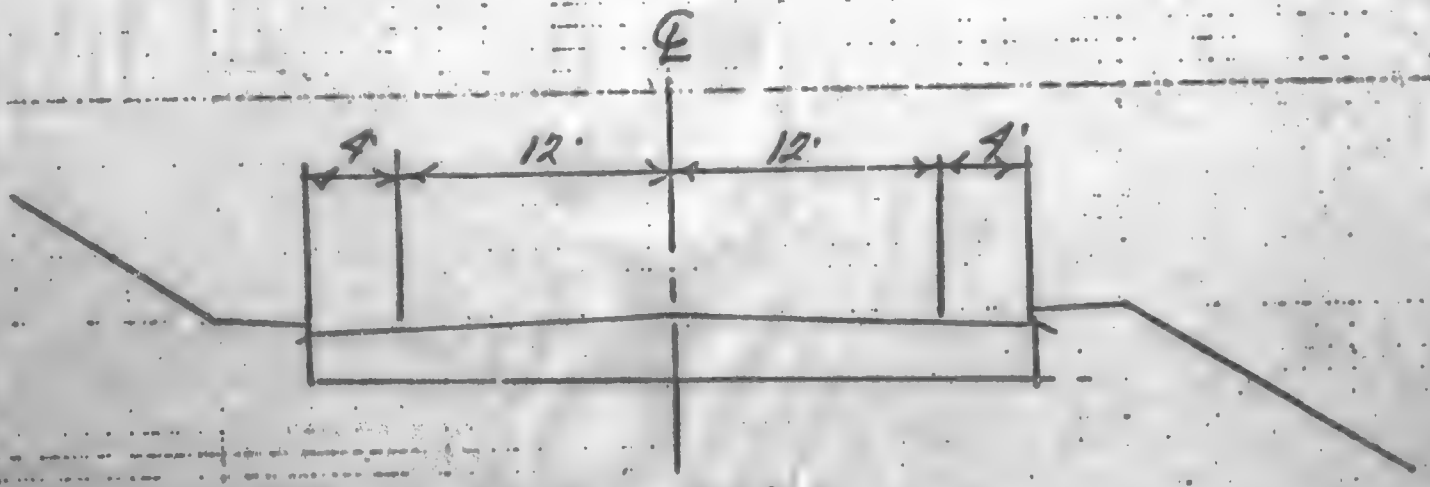
By _____ By _____

By _____ By _____

By _____

ROADWAY CROSS-SECTION





-8952

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Portland, Oregon 97213

November 8, 1976

FILE:

FROM: R. T. EWEN
Metro Location Engineer

SUBJECT: Scholls Highway Ramp
Progress Interchange
Beaverton-Tigard Highway

TO: MEMO TO THE FILE

At Mr. Hunter's request, I met with R. M. McTarnahan and Robert A Leedy regarding our proposed Scholls Ramp Project on the subject highway.

At this meeting, I advised them of the history behind the project, the planning performed to date, and that this project was on the CRAG TIP. The TIP (Page 21) provides for P.E. funding in 1977 and construction funding in 1978.

Mr. McTarnahan was very vociferous in demanding that we avoid his property, which contains the Nissan Motors. He has lease agreements, covering an expansion of six years, which would be seriously affected (Mr. McTarnahan was talking in terms of three million dollars).

Mr. McTarnahan and Mr. Leedy have talked to Mr. Jackson about ramp configuration. He displayed a sketch map and said Mr. Jackson had indicated we could provide a similar configuration on this project.

I explained to Mr. McTarnahan that during the preliminary engineering we would look at all the alternatives and that he would be further contacted during the development of these alternatives. The sketch map presented by Mr. McTarnahan had been previously evaluated by our design office, however, I assured him that it would be considered as one of the alternatives.

RTE:pq

cc [redacted]
R. N. Bothman
E. L. Hardt

Attachments

RECEIVED
STATE HWY ENGR
NOV 10 '76
REFER TO
FOR
Instr. Invest. R/D D/R Sign Act. File

NOTED
H.S. COULTER

WASHINGTON SQUARE

NORTH

TO I

SCHOLLS FERRY ROAD

TO RALEIGH HILLS

217

HIGHWAY

GLARE SHIELD

65'R

205'R

203'R

25'

300'R

BEAVERTON

E&W LINE

GAF PARKING LOT

FOR PRELIMINARY REVIEW

NOTED
R. T. BIREN

WASHINGTON SQUARE

SCHOLLS FERRY ROAD

HILLS

217

HIGHWAY

GLARE SHIELD

66'R

200'R

200'R

300'R

25'

TO I-5

TO TIGARD

R/W LINE

FOR PRELIMINARY REVIEW

NOTED
R. T. EWEN

NISSAN BLDG

8952

144

Salem, Oregon
October 21, 1976

Don N. Stoudenmeyer
Preliminary Design Supervisor

Mr. E. S. Hunter
Deputy State Highway Engineer

Southbound Off-Ramp to Scholls Ferry Road.
Progress Interchange
Beaverton-Tigard Highway
Washington County

The following info is offered on the subject project:

1. Estimate--$325,000 (including $77,750 R/W)

2. Approximate right of way line--shown on attached sketch.

3. Access agreement--attached section of right of way shows no access control to the frontage road or Scholls Ferry Road from any of the three properties in the area. There is no mention of any access rights or limitations on the final judgement with MacTarnahan.

4. ADT--shown on attached sketch.

5. Project generation--attached copy of page from assessment states the proposal is in the 1971 Tigard Comprehensive Plan, etc.

6. Funding--Project is proposed for FAUS (see attached sheet). We have an A-95, an assessment, Region has requested survey approval, and County-City will shortly request Commission approval and Federal approval for funding.

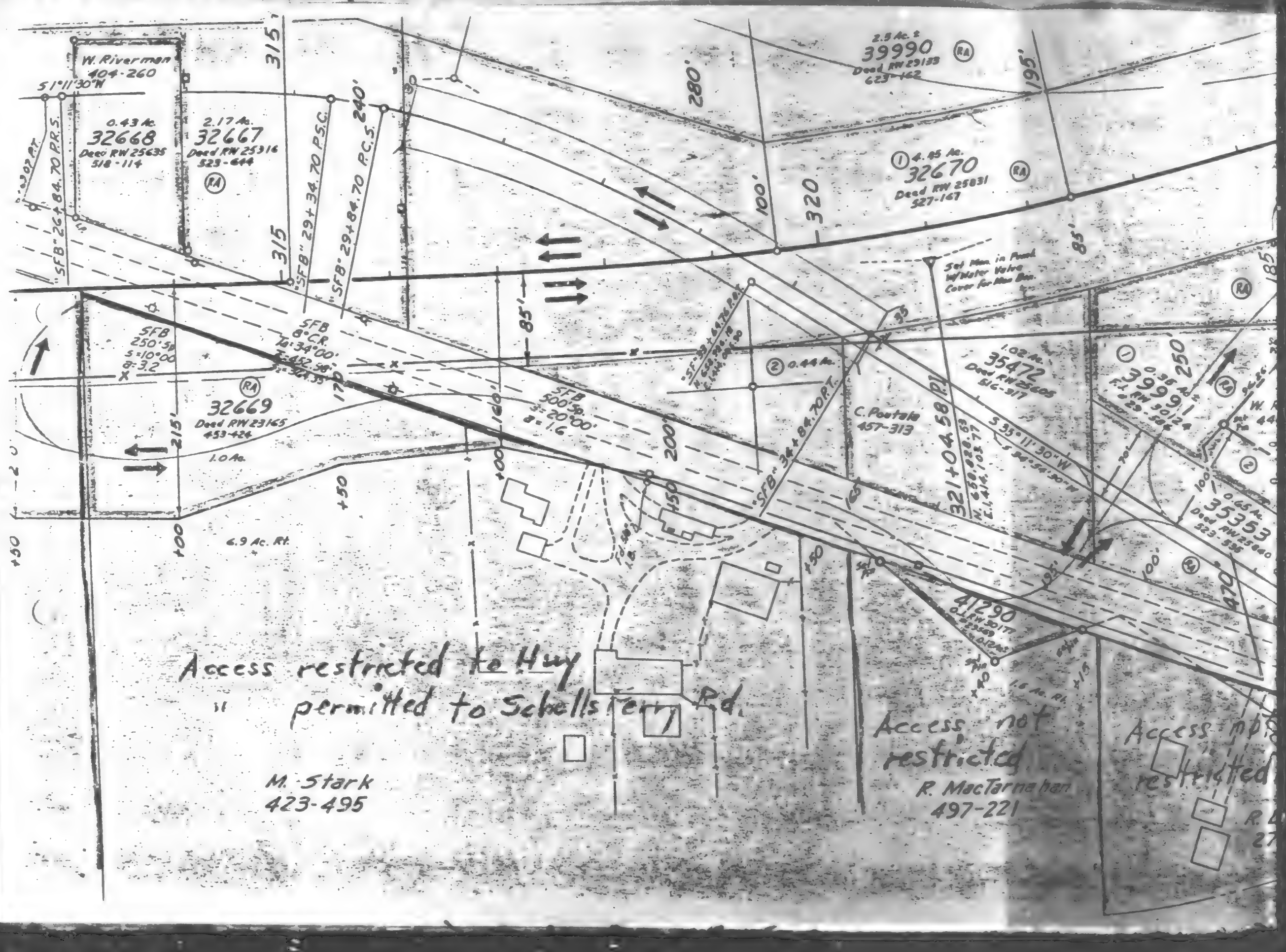
Bob Eden states that it is his understanding MacTarnahan plans to expand to the south which would conflict with our proposal.

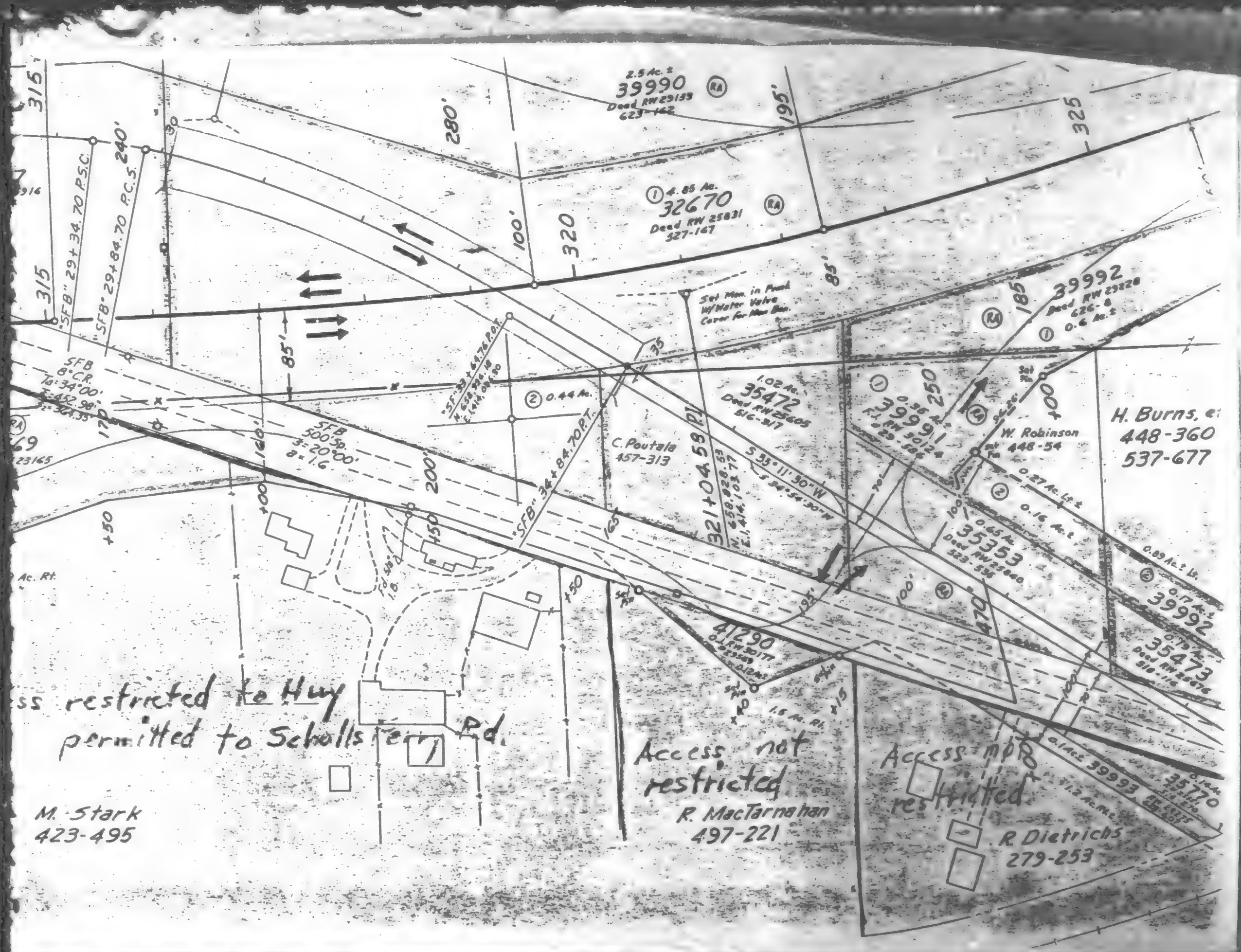
A photo mosaic is included for your use and a copy of our last letter to you stating the project is acceptable and recommended.

Vorstoog
Olson
Christensen
Scott
Swenson
Savage
Trout

RECEIVED
OCT 22 1976
ROAD DESIGN SECTION

Requires Reply
Requires Approval
Receiver Keep
Do not File
Return To
Bring Up
Other


W. Riverman
404-260
51°11'30"W
0.43 Ac.
32668
Deed RW 25635
518-114
2.17 Ac.
32667
Deed RW 25316
523-644
RA
315'
315'
SFB" 26+84.70 PRS.
SFB" 29+34.70 PSC.
SFB" 29+84.70 PCS.
240'
280'
100'
320
2.5 Ac.±
39990
Deed RW 29133
623-162
RA
195'
① 4.85 Ac.
32670
Deed RW 25831
527-167
RA
85'
Set Mon. in Pond
w/Water Valve
Cover for Mon Box
SFB
250'Sp
S=10°00'
D=3.2
SFB
8°CR
Δ=34°00'
T=452.58'
L=921.35'
SFB
500'Sp
S=20°00'
D=1.6
215'
RA
32669
Deed RW 23165
453-424
1.0 Ac.
170'
100'
200'
② 0.44 Ac.
C. Poutala
457-313
1.02 Ac.
35472
Deed RW 25605
516-317
① 0.36 Ac.
39991
RW 30124
629-284
250'
0.65 Ac.
35353
Deed RW 25860
523-335
S 95°11'30"W
321+04.58 P.I.
SFB" 34+84.70 PT.
41290
Deed RW 24177
25560
6.9 Ac. Rt.
1.6 Ac. Rt.
Access restricted to Hwy
" permitted to Schellstern Rd.
M. Stark
423-495
Access not
restricted
R. MacTarnehan
497-221
Access not
restricted
R.
27


2.5 Ac. ±
39990
Deed RW 29133
623-162
RA
280'
195'
325
4.85 Ac.
32670
Deed RW 25831
527-167
100'
320
315'
315
SFB 29+34.70 P.S.C.
SFB 29+84.70 P.C.S.
240'
85'
Set Mon. in Pvmt.
W/Water Valve
Cover for Mon Box
185'
39992
Deed RW 29228
626-8
0.6 Ac. ±
SFB
8° C.R.
Ta: 34°00'
T: 452.98'
L: 901.35
SF 33+64.76 P.O.T.
N 638,926.18
E 1414,049.80
0.44 Ac.
1.02 Ac.
35472
Deed RW 25605
516-317
0.35 Ac.
39991
Deed RW 30124
629-586
W. Robinson
448-54
H. Burns, et
448-360
537-677
SFB
500' Sp.
S: 20°00'
a: 1.6
C. Poutala
457-313
SFB 34+84.70 P.O.T.
S 33° 11' 30" W
S 34° 54' 30" W
321+04.58 P.I.
0.27 Ac. Lt.
0.16 Ac. ±
0.65 Ac.
35353
Deed RW 25940
523-536
0.89 Ac. ± Lt.
0.17 Ac. ±
39992
0.79 Ac.
35473
Deed RW 25676
510-116
41290
Deed RW 30177
629-585
Access restricted to Hwy
permitted to Scholls Ferry Rd.
M. Stark
423-495
Access not
restricted
R. MacTarnahan
497-221
Access not
restricted
R Dietrichs
279-253
0.14 Ac. ±
35770
Deed RW 30175
516-570
Deed 39993
51.2 Ac. ±

OREGON STATE HIGHWAY DIVISION
PROJECT ASSESSMENT

CATEGORY 3 PROJECT
Major (N.S.)
M-9234(-)

PART 1. GENERAL INFORMATION

A. Project Identification:

Section: Progress Interchange Off Ramp to Scholls Ferry Road
Date: August 12, 1976
Unit (if appl):
County: Washington
City:
Highway: Beaverton-Tigard
State Hwy. No.: ORE 217
Termini: M.P.(if appl):
Length:
Region: 1
Construction Estimate: $350,000 FAU
Program Amount

B. Purpose of Project:

To relieve congestion at the Hall Blvd./217 interchange and on Hall Blvd. and Scholls Ferry Rd. at Progress by providing a separate exit at the Scholls Ferry Rd. interchange for motorists desiring to travel west on Scholls Ferry Rd. from 217. This would separate much of the westbound traffic from Washington Square traffic. Travel times for traffic destined for Scholls Ferry Rd. would be reduced.

C. Origin & History of Project:

This ramp is proposed in the 1971 Tigard Comprehensive Plan. The Beaverton Chamber of Commerce supports construction (Jan. 1975). The Beaverton City Council and the Washington County Board of Commissioners have also requested the project.

The development of Washington Square Shopping Center and the explosive suburbanization or rural lands along Scholls Ferry Rd. south of Beaverton has begun to place heavy traffic demands on the Hall Blvd. interchange and the Progress intersection.

D. General Description of Project:

Constructs an off-ramp from the southbound lanes of the Beaverton/Tigard Hwy. to Scholls Ferry Rd. Relocates the existing frontage road connection at Scholls Ferry Road. Revises the traffic signal system at the HallBlvd./217 interchange.

Alignment: New X Existing Combined

Typical Section: Existing: No. Lanes 0; Med.; Shldrs.; Parking
Proposed: No. Lanes 1; Med. --; Shldrs. Paved; Parking No

Traffic: Existing Facility: Existing ADT 0; Projected ADT; Yr.
Existing Level of Service

Proposed Facility: Projected ADT 2800; Yr. 1990
Projected Level of Service D (1995)

OREGON STATE HWY

PROJECT NAME / ID #	ESTIMATED TOTAL EXPENDITURES BY OBLIGATION YEAR ($000) FISCAL YEAR: PRE'77 OBLIG'TN (1)	1977 (2)	1978 (3)	1979 (4)	1980 (5)	1981 (6)	POST'81 (7)	TOTAL COST (8)	FUNDING DISTRIBUTION ($000): LOCAL (9)	STATE (10)	FEDERAL: PORTLAND (11)	OREGON REGION (12)	WASH REGION (13)
162ns @ Powell Blvd Signal			37					37				29	
												-	
Beav HillsD/Hwy 217/110th ST-Signal Interconnect			74					74				58	
Scholls Hwy-Fanno CR Struct Replacement			175					175				137	
Swift Hwy-I-5 to Columbia Blvd (Marine Dr/N Portland Rd)			19	1013				1032				805	
Scholls Hwy @ Allen Signals/Widening			105					105				82	
Farmington @ Murray - Widening			80					80				62	
Beav-Tualatin Hwy @ Nyberg - Signals			32					32				25	
Scholls Hwy @ 135th - Widen, Left turn Refuge			15	105				120				94	
Beav-Tualatin Hwy @ Hunziker Intersection Imp			25					25				20	
Progress Intchg Off-Ramp to Scholls Fy Rd		25	325					350		5		20	
Washington St (Abernathy CR) ...ge Replacement			20	612				632				273	
Scholls Hwy @ 121st-Signals/ Widening			80					80				62	
TOTAL		25	987	1730				2742					

LEGEND

INDICATES ANNUAL ELEMENT

*** INDICATES ...

LOCAL		--
STATE		5
FEDERAL	PORTLAND	--
	OREGON REGION	20
	WASH REGION	--

...ALLY PROGRAMMED IN FY76 ELEMENT; IF NOT OBLIGATED THEN, PROJECT AND FUNDS INCORPORATED IN FY 77 ELEMENT BY REFERENCE

TABLE 10
FEDERAL AID URBAN SYSTEM
OREGON STATE HIGHWAY DIVISION

TRANSPORTATION IMPROVEMENT PROGRAM
PORTLAND-VANCOUVER METROPOLITAN AREA

CW1 T10

8952

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

STATE CLEARINGHOUSE

October 18, 1976

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Leslie Lehmann, Coordinator Ph: 378-3732

G. L. Green, FHWA
~~H. S. Coulter~~
F. E. Ternin
J. B. Boyd
R. E. Royer
J. H. Versteeg
Gary Potter
W. J. Hart
E. L. Hardt
W. W. Geibel
Aeronautics Division
Paul Hartwig, Parks
B. L. Gifford

STATE A-95 REVIEW CONCLUSIONS

APPLICANT: Oregon Highway Division

PROJECT TITLE: Progress Intchg. Off-Ramp (Dist #2)

DATE: 10/13/76

The state has reviewed your project and reached the following conclusions:

☐ No significant conflict with the plans, policies or programs of state government have been identified and your proposal is endorsed as presented.

☒ Relevant comments of state agencies are attached and should be considered in the final design of your proposal.

☐ Potential conflicts with the plans and programs of the state agency(s) have been satisfactorily resolved. No significant issues remain.

☐ Significant conflicts with the plans, policies or programs of state government have been identified and remain unresolved. The final proposal has been reviewed and the final comments and recommendations of the state are attached.

NOTICE TO FEDERAL AGENCY

The following is the officially assigned State Identifier Number:

7609 2 930

This number should be used on all correspondence and particularly on SF 240 as required by OMB A-98.

RECEIVED
STATE HWY DIV
OCT 18 '76
REFER TO
FOR

A copy of this notification and attachments, if any, must accompany your application to the federal agency as required by OMB A-95. Comments of the appropriate local reviewing agencies must also be included.

10-10-76
BEN GIFFORD

PNRS #2

STATE CLEARINGHOUSE

Intergovernmental Relations Division
240 Cottage Street S.E., Salem, Oregon 97310
Ph: 378-3732

Administrative Services Division
Dept. of Environmental Quality
RECEIVED
SEP 21 1976

PNRS STATE REVIEW

Project #: 7609 2 930 Return Date: OCT 08 1976

The attached proposal is for your review and comment. Please notify us immediately if you will be unable to respond by the indicated due date. If no response is received by the due date, it will be assumed that you have no comment and the file will be closed.

PRELIMINARY ENVIRONMENTAL ASSESSMENT

( ) The Preliminary Environmental Assessment is adequate. No significant effect on the environment is indicated and a negative declaration is justified.

( ) The Preliminary Environmental Assessment is adequate. There is a significant effect on the environment and an Environmental Impact Statement should be prepared as required by the National Environmental Protection Act.

(✓) The Preliminary Environmental Assessment is inadequate; further documentation is necessary. See remarks below.

- - - - - - - - - - - - - - - - - -

REMARKS

The air quality impact of the proposed project and associated land use development on property adjacent to Hwy 217 should be assessed. An Indirect Source Construction Permit is required.

Agency DEQ By Anthony J. George J

(#2) 895 a

ROBERT W. STRAUB
GOVERNOR

DEPARTMENT OF TRANSPORTATION

STATE HIGHWAY BUILDING • • SALEM, OREGON • • 97310

September 10, 1976

TO Executive Department
Federal Aid Coordination Unit

Columbia Region Association of Governments
527 S.W. Hall Street
University Center Bldg.
Portland, OR 97201

FROM D. E. Swan
Federal Aid Engineer

SUBJECT Notice of Intent for Federal Aid Funds
State Admin. Dist. No. 2
Section: Progress Intchge. Off-ramp
Highway: Beaverton-Tigard Highway to Scholls Ferry Rd.
County: Washington

In accordance with Executive Memorandum 02-270-20, attached are copies of the Notices of Intent for the subject project.

Early programing of this project for advance planning in anticipation of future construction is necessary; therefore, your prompt attention to this proposal will be appreciated.

Allowing time for your review, we estimate the date of filing for federal aid funds on this project to be October 8, 1976.

BLG: dpy

Attachment

cc: G. L. Green
H. S. Coulter
F. E. Terpin
J. B. Boyd
R. E. Royer
J. H. Versteeg
Gary Potter
W. J. Hart

Region Engineer: E. L. Hardt
District Engineer: W. W. Geibel
Aeronautics Division
Paul Hartwig, Parks
B. L. Gifford
R. E. Etherington, CRAG

OREGON PROJECT NOTIFICATION AND REVIEW SYSTEM

NOTIFICATION OF INTENT TO APPLY FOR FEDERAL AID

For Internal Use Only | 1-8] PNRS # | Page One

02 [12] APPLICANT: State Highway Division [45] | [46] DIVISION: Department of Transportation [79]

03 [12] APPLICANT ADDRESS STREET: State Highway Building [45] | [46] CITY: Salem [60] | [76] ZIP: 97310 [80]

04 [12] CONTACT PERSON: L. W. Rulien [45] | [46] AREA CODE: 503 [48] | [49] PHONE: 378 [55] | [56] EXTENSION: 6563 [59]

01 [12] PROJECT TITLE: Progress Intenge, Off Ramp District 2 [71]

11 [12] PROJECT LOCATION—CITY: Beaverton-Tigard Hwy. to Scholls Ferry Road | PROJECT LOCATION—COUNTY: Washington | PROJECT LOCATION SEC: T: 1S R: 1W [79]

05 SUMMARY PROJECT DESCRIPTION (ATTACH SUPPORTING DOCUMENTS AS NECESSARY—SEE INSTRUCTIONS ON BACK)
[12] This project involves preliminary engineering, acquisition of right-of-way, [71]

06 [12] grading, paving, and incidental work required to construct an off-ramp from [71]

07 [12] the southbound lanes of the Beaverton-Tigard Highway to Scholls Ferry Road. [71]

08 [12] [71]

09 [12] (see attachment) [71]

10 [12] [71]

12

AMOUNT REQUESTED—FEDERAL FUNDS		NON-FEDERAL MATCHING FUNDS		OTHER	TOTAL
[12] (A) Grant [19]	[20] (B) Other [27]	[28] (C) State [35]	[36] (D) Local [43]	[44] (E) FUNDS [51]	[52] (F) FUNDS [60]
$300,000	-	$25,000	$25,000	-	$350,000

13 [12] TYPE OF OTHER FEDERAL FUNDS (See 12B) [45] | [46] TYPE OF OTHER NON-FEDERAL FUNDS (See 12E) [79] [71]

14 [12] FEDERAL PROGRAM TITLE: Title 23 USC Highways

15 [12] FEDERAL AGENCY NAME: U.S. Department of Transportation [45] | [46] FEDERAL SUB-AGENCY NAME: Federal Highway Administration [79]

17 (A) TYPE OF APPLICANT: (Check (X) the single most applicable box)

STATE	INTER-STATE	COUNTY	CITY	SCHOOL DISTRICT	SPECIAL DISTRICT	COMMUNITY ACTION	SPONSORED ORGANIZATION	OTHER
[X] 12	☐ 13	☐ 14	☐ 15	☐ 16	☐ 17	☐ 18	☐ 19	☐ 20

(B) TYPE OF ACTION: (Check (X) as many boxes as apply to this action)

NEW GRANT	CONT. GRANT	SUPPL'T GRANT	INCREASE DURATION	DECREASE DURATION	CANCELLATION	INCREASE DOLLARS	DECREASE DOLLARS
[X] 21	☐ 22	☐ 23	☐ 24	☐ 25	☐ 26	☐ 27	☐ 28

(C) HAS DISTRICT CLEARINGHOUSE BEEN NOTIFIED? Yes [X] 29 No ☐ 30 Date: Same as Letter

(D) REVIEW REQUIRED by A-95: Yes [X] 31 No ☐ 32

(E) ENVIRONMENTAL IMPACT: Yes ☐ 33 No [X] 34

(F) HOUSING RELOCATION REQUIRED: Yes [X] 35 No ☐ 36

(G) ESTIMATED APPLICATION FILING DATE: 41] MONTH [42] October | 43] DAY [44] 8 | 45] YEAR [46] 1976

ADDITIONAL INFORMATION—ALL APPLICANTS

I. A. Is the project consistent with the city or county comprehensive plan, zoning and subdivision ordinance? No ☐ Yes ☒

I. B. Is the proposal consistent with statewide land use goals? No ☐ Yes ☒

I. C. Is the proposal consistent with state and regional plans? No ☐ Yes ☒

II. Will the project have an impact on a neighboring jurisdiction? No ☒ Yes ☐

If so, is the project consistent with the comprehensive plan for that jurisdiction? No ☒ Yes ☐

III. Explain deviations if any, from pertinent plans.

IV. Federal Catalog number (or Public Law no. and title) 20.205 Highway Planning and Construction

V. Has funding agency been notified? No ☐ Yes ☒ Date: (same as letter)

VI. If project includes state funds (12C), identify agency

STATE AGENCIES ONLY

VIII. (a) IS PROGRAM BUDGETED ☐ NON-BUDGETED ☐

(b) STATE SHARE

GENERAL FUND CASH	OTHER FUND CASH	IN KIND
$	$	$

(c) FUNDING METHOD

	FEDERAL SHARE		STATE SHARE		TOTAL	
First Year	%	$	%	$	%	$
Second Year	%	$	%	$	%	$
Third Year	%	$	%	$	%	$

(d) WILL PROGRAM REQUIRE HIRING OF NEW STATE EMPLOYEES? No ☐ Yes ☐ Number

(e) Will accounting for this grant be administered by the Executive Dept. Accounting Division? Yes ☐ No ☐

PLEASE ATTACH ANY ADDITIONAL NARRATIVE OR REMARKS

17 (e) This is a Category 3 project of Major-Non Significant Environmental Impact uner Oregons Action Plan.

STATE OF OREGON

INTEROFFICE MEMO

8952

TO: E. S. Hunter
Deputy State Highway Engineer

DATE: August 31, 1976

FROM: for L. W. Rutten
Program Management Engineer

SUBJECT: PROJECT ASSESSMENT
Progress Interchange Off Ramp
to Scholls Ferry Road
Beaverton-Tigard Hwy.
Washington County

RECEIVED
SEP 9 1976
REGION 1

NOTED
JON ROSE

Attached for your information is an assessment, concurred in by the FHWA.

Project Management classifies this section as a Category 3 project of MAJOR action. (Non-Significant)

Your approval will place this project in our Project Management System and allow its development in accordance with Action Plan procedures.

BLG:ljt
Attach.

Approved 9/3/76
Asst. State Hwy. Engr.

RECEIVED
STATE HWY ENGR
SEP 2 '76
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

cc: J. B. Boyd (3)
L. E. George
W. J. Hart
C. T. Keasey
J. H. Versteeg (4)
F. E. Terpin
G. A. Potter (2)
George Bell
R. E. Royer
Surfacing Design - Lab Bldg.
~~County/City Unit~~
~~D. F. Swan~~
B. L. Gifford
Region 1 : Ed Hardt
District 2 : W. W. Geibel
Region 1 Geologist: Dan Gano

81-120-1307

OREGON STATE HIGHWAY DIVISION
PROJECT ASSESSMENT

CATEGORY 3 PROJECT

Major (N.S.)

M-9234(-)

PART 1. GENERAL INFORMATION

A. Project Identification:

Section: Progress Interchange Off Ramp to Scholls Ferry Road
Date: August 12, 1976
Unit (if appl):
County: Washington
City:
Highway: Beaverton-Tigard
State Hwy. No.: ORE 217
Termini: M.P.(if appl):
Length:
Region: 1
Construction Estimate: $350,000 FAU
Program Amount

B. Purpose of Project:

To relieve congestion at the Hall Blvd./217 interchange and on Hall Blvd. and Scholls Ferry Rd. at Progress by providing a separate exit at the Scholls Ferry Rd. interchange for motorists desiring to travel west on Scholls Ferry Rd. from 217. This would separate much of the westbound traffic from Wasbington Square traffic. Travel times for traffic destined for Scholls Ferry Rd. would be reduced.

C. Origin & History of Project:

This ramp is proposed in the 1971 Tigard Comprehensive Plan. The Beaverton Chamber of Commerce supports construction (Jan. 1975). The Beaverton City Council and the Washington County Board of Commissioners have also requested the project.

The development of Washington Square Shopping Center and the explosive suburbanization or rural lands along Scholls Ferry Rd. south of Beaverton has begun to place heavy traffic demands on the Hall Blvd. interchange and the Progress intersection.

D. General Description of Project:

Constructs an off-ramp from the southbound lanes of the Beaverton/Tigard Hwy. to Scholls Ferry Rd. Relocates the existing frontage road connection at Scholls Ferry Road. Revises the traffic signal system at the HallBlvd./217 interchange.

Alignment: New X Existing Combined

Typical Section: Existing: No. Lanes 0 ; Med. ; Shldrs. ; Parking
Proposed: No. Lanes 1 ; Med. -- ; Shldrs. Paved; Parking No

Traffic: Existing Facility: Existing ADT 0 ; Projected ADT ; Yr.
Existing Level of Service

Proposed Facility: Projected ADT 2800 ; Yr. 1990
Projected Level of Service D (1995)

Right of Way: Additional anticipated Yes (Yes, No); if yes, give approx. No. Parcels 3

Acres 1/2; Type of Relocation Req. Residence; No. 1

Materials Source, Borrow, Waste Disposal Requirements, if any:

Several commercial material sources are located along Scholls Ferry Road. Additional embankment materials will be needed.

Type of Structure(s):

Some walls and/or bank reinforcement may be necessary

Brief Description of River or Stream and Type of Involvement, if any:

No significant drainages involved. Fanno Creek is approximately 1,500 feet from the interchange project.

Local City, County or COG priorities of project:

Project is supported by the Cities of Beaverton and Tigard and by Washington County, and has been approved by CRAG and placed on the TIP (Fy 77)

FHWA and/or OSHD approvals given, if any: Project has not yet been placed on Six-Year construction program; available matching funds will allow its inclusion.

Location or Design Alternatives (identify and describe):

1. Ramp connection to frontage road - GAF objected strongly to this proposal because of the hazards of a foreshortened deceleration lane and interference with their access traffic.
2. No-build - would result in continued increases in congestion in the Progress Intersection (Scholls Fy. & Hall) and near Washington Square access. Traffic queues are beginning to back up into 217 during peak hours, creating rear-end collision hazards at the Hall Blvd. off-ramp.

Other Descriptive Information or Comments:

The Hall Blvd. exit ramp (presently serves part of the traffic which would use the proposed ramp) had a 1975 ADT of 2900. The 1990 demand projection is 6700 ADT if the proposed project is not built.

(Attach project sketch map.)

PART II. ENVIRONMENTAL ASSESSMENT

A. Brief Environmental Setting of Project Area:

1. Natural:

The proposed project is located in the Fanno Creek basin, which has a moderately rolling topography. No significant drainages are located in the proposed project area.

Much of the vegetation consists of herbs and grasses planted as a part of earlier construction projects. Seven large oak trees are located in the path of the proposed construction, between the present frontage road and Highway 217.

2. Cultural:

The project vicinity (see map) is in an explosively suburbanizing area and contains a combination of land uses characteristic of many rapidly sprawling urban fringes in the region. An industrial park parallels Hwy. 217 on the west, while a large, newly completed regional shopping center (Washington Square) and a mixture of residential and commercial uses lie just to the east.

Farmlands along Scholls Ferry Rd. west of Hwy. 217 are rapidly being converted to urban residential uses. City annexations have spread southward from Beaverton and northward from Tigard in recent years until a portion of Scholls Ferry Rd. has now become the common boundary between them. The Beaverton General Plan indicates continued conversion of farmland to 6,000 to 10,000 square foot residential lots along Scholls Ferry Rd. - an extension of the present trends. Several subdivisions along Scholls Ferry Rd. have been approved during recent months, and construction has started on some, following the extensions of sewer interceptors and other utilities.

This westward urbanization is creating increased street congestion and increased travel times in the Progress-Washington Square area. This is being aggravated by the indirect access from Hwy. 217 to Scholls Ferry Rd.

A building owned by Datsun is located adjacent to the proposed project site. It is anticipated that it would not be disturbed by the project, but would be very close to the highway embankment. One residence and an automotive repair garage are located partially within the proposed construction area.

Traffic noise and air pollutant emissions are dominated by existing traffic on Hwy. 217.

B. Preliminary Assessment of Environmental Impacts:

1. Consequences and Significance of Right-of-Way Acquisition:

   a. Probable displacement of one residence.
   b. Possible displacement of automotive repair garage, or rearrangement of access and parking for that business.
   c. Reconnaissance estimate done in Jan. 76 values the damages, relocation, moving, etc. at $77,750.

2. Estimated Impact on Traffic Patterns:

   a. Reduced congestion in Washington Square-Progress area.
   b. Reduced travel times between Hwy. 217 and Scholls Ferry Rd.
   c. Substantial decrease in the frequency of left turns at the Scholls Ferry/Hall Blvd. intersection.

(Continued on page 4A)

Consequences--Air Quality, Noise, Safety, etc.:

   a. Air quality should be improved in the short-term and noise will be reduced in comparison with the no-build alternative. Safety will also increase until development once again reduces the level of service.
   b. Development incentives will increase along Scholls Ferry Rd. due to improved access.

3. Estimated Impact on Land Use:
No significant direct effects. Improved access is likely to accelerate residential development along Scholls Road. Further, without the project, it is unlikely that development would proceed to the extent possible with it. This stems from the constraint an overtaxed transportation network has on the development potential of the land served.

Consequences:
With the proposed off-ramp in operation, the bottleneck at Hall Blvd./217 will be removed. The continued development and subsequent trip generation that this improvement allows will then increase traffic demand on Scholls Ferry Rd. and Hwy. 217, possibly generating the need to improve the facilities in the future.

4. Expected Impact on Natural Ecological Resources:
Direct: Seven large oak trees will be removed due to the ramp construction.
Indirect: Conversion of agricultural grasslands which serve as bird habitat to urban residential uses.

Consequences:
Reduction of bird habitat and shade.

5. Expected Impact on Cultural and Scenic Resources:
Tree removals will reduce visual variety along Hwy. 217 and increase the visual dominance of the highway interchange.

Consequences:

d. Improved highway service to developing land on Scholls Ferry Rd.
e. Increased traffic volumes on Hwy. 217 between off-ramp to the Beaverton-Tualitin Hwy. (M.P. 3.56) and the proposed off-ramp to Scholls Ferry Rd (approx. M.P. 4.0).

Preliminary Identification of Areas of Critical Concern:

Future adequacy of facility and connecting facilities as development proceeds.

Potential for Controversial Issues:

None anticipated.

Potential for Consistency of Proposal With:

a. Clean Air Implementation Plans
The project is likely to reduce the quantities of pollutants emitted per car by improving traffic flows and reducing travel times. The project does qualify as an indirect source so a construction permit from DEQ may be called for.

b. Noise Standards
Smoother traffic flows resulting from the project will result in reduced traffic noise levels. Noise impacts will also be reduced by directing traffic on Hwy. 217 bound for Scholls Ferry Rd. around Progress via Hwy. 217, thus reducing traffic
(Continued on page 5A)

c. Water Quality Standards
The project will have no significant aquatic effects.

d. Area Land Use and Transportation Plans, and Zoning
The project is consistent with the Beaverton Area General Plan, which includes a circulation plan. Further expansion of the interchange and related facilities seems likely if the proposed housing expansion continues in the area.

Recommended Type of Action and Documentation:

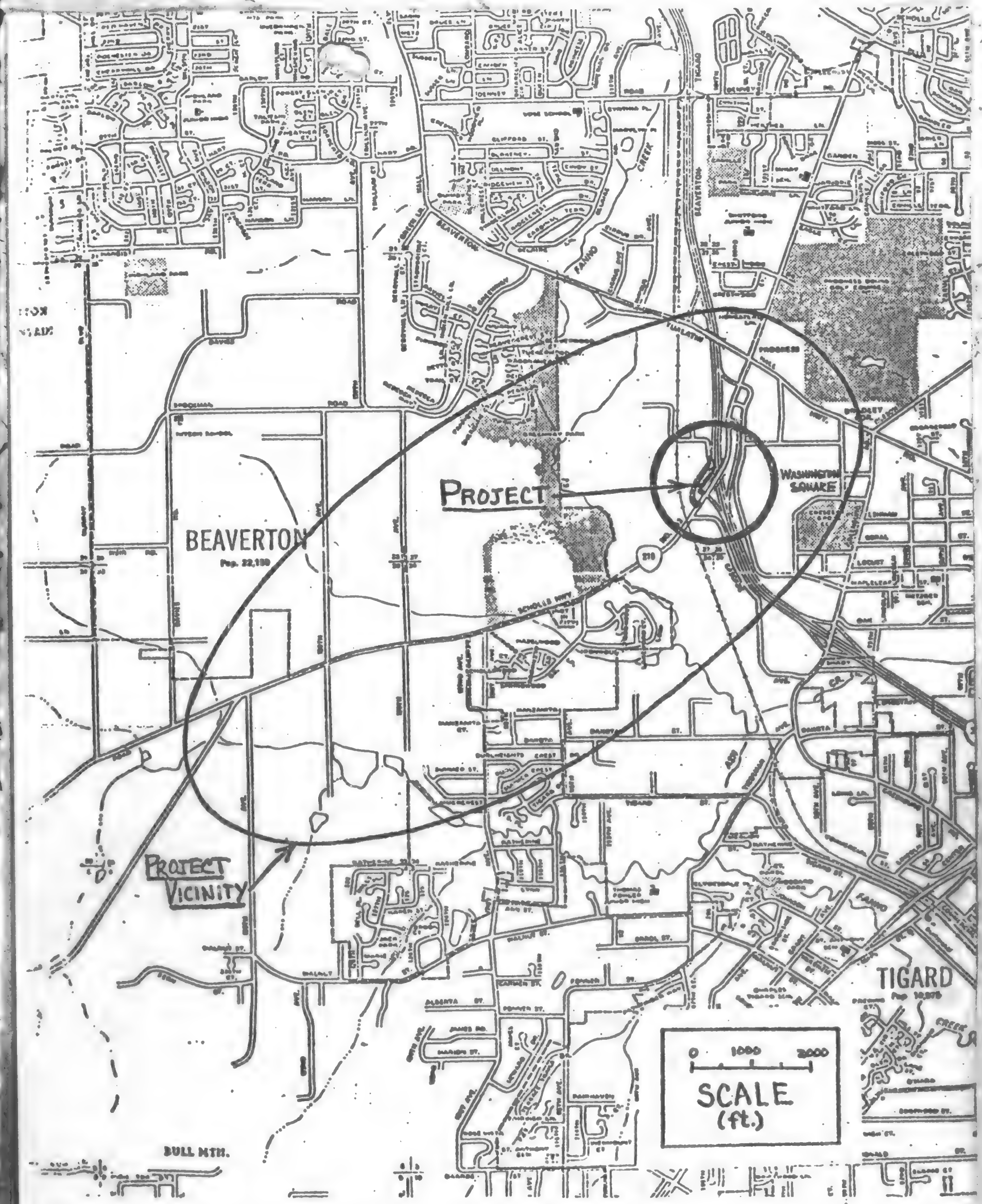
----------MAJOR ACTION---------- ----NON-MAJOR ACTION-----

SIGNIFICANT:	NON-SIGNIFICANT:	
____ D & FEIS	__X__ D & F Neg.Dec.	____ ASSESSMENT ONLY
____ Section 4(f)	____ Section 4(f)	____ STATEWIDE ASSESSMENT

Basis for Type of Action and Documentation:
The improved access will allow the continued conversion of vacant rural acreage to urban residential uses. Without the project, it is unlikely that the area would reach its full development potential. Moreover, with the project, and the land development that follows, it is reasonable to expect that additional transportation improvement requests will arise.

Recommended Project Category: ____ 1 ____ 2 __X__ 3 ____ 4

in the most noise-sensitive areas. A brief type 1A noise report will be necessary pursuant to FHPM 7-7-3.


PROJECT
BEAVERTON
Pop. 22,110
PROJECT VICINITY
WASHINGTON SQUARE
TIGARD
BULL MTN.
0 1000 2000
SCALE (ft.)

8952

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem, Oregon 97308

DATE: August 25, 1976

In reply refer to: 1041A.1

SUBJECT: Oregon Project M-9234(-)
Progress Interchange Off-Ramp
Project Assessment

FROM : G. L. Green, Division Administrator

TO : Mr. H. S. Coulter, State Highway Engineer
Salem, Oregon

The subject project assessment submitted with Mr. Rulien's August 17, 1976, memorandum has been reviewed. We concur with your finding that the proposed project constitutes a major action requiring the preparation of a negative declaration.

It should be understood that our concurrence is only on the type of action and type of environmental document. The proposed standards, design and other specific details contained in the assessment will be subject to future reviews.

William A. Egan
for G. L. Green

cc:
OSHD (Potter)
" (Laux)
" (Region 1, C. Markham)

RECEIVED
STATE HWY ENGR
AUG 26 '76
REFER TO
Rulien
FOR
Info | Inves | R/D | D/R | Sign | Act | File

8-752

FAUS (State) (2) 9234

Form E-39 (Rev. 9-71)

OREGON STATE HIGHWAY DIVISION

AUTHORITY FOR SURVEY

Section Progress Interchange Off-ramp to Scholls Ferry Road Date July 27, 1976

Highway Beaverton - Tigard Scholls Authorization No. 1

County Washington Survey Prefix 134-1930 (Assigned by Salem office)

Description of termini, route, length, etc.:

The project is in the Northwest quadrant of Progress Interchange. The northly terminus is at Beaverton - Tigard Highway, MP 4.1; the southerly terminus is at Scholls Highway, MP 9.1. Total length is 1,500 feet.

Hopkins
Harwell
Holmes
Prange R
Unrein

RECEIVED
JAN 11 1977
COUNTY
CITY
UNIT

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up ___/___/___
Other

Purpose of survey:

Prepare plans, specifications, and estimate to grade and pave for the construction of an off ramp from Beaverton - Tigard Highway to Scholls Ferry Road and realign the existing frontage road and prepare plans for signalization.

Estimate of cost:

Field	901	$5,000
Citizen Participation	902	1,000
Soils & Geology	910	1,500
right-of-way	913	1,000
Utility Liaison	914	500
Environmental	923	1,000

Total estimated cost of survey . . . . . $ 10,000

Previous authorization . . . . . .

Additional authorization requested . . . . . .

Additional authorization approved (Salem) . . . . .

Total all authorizations approved (Salem) . . . . .

INSTRUCTIONS

Submit four copies to Salem. After approval by the Assistant State Highway Engineer, one copy will be sent to the Regional Engineer and one copy to the Resident Engineer.

This form does not constitute authority for making survey until approved and returned.

Submit separate order for each survey.

Requests made by: R R Cameron — Field Engineer

Recommended for Approval: Edward E. Hardt — Regional Engineer

Recommended for Approval: H Dale E. Pierpoint — Location Engineer

Approved: E J Hunter Dpty — Assistant State Highway Engineer

SP*23604-724

OFFICE ENGINEERING SECTION
E. D. MTR. 1-10-77
ED [redacted]

8952

Hwy 144
Wash Co
9234

Form 61.734-8830

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Region 1 - Milwaukie

July 26, 1976

FILE: PRO

FROM: CRAIG MARKHAM
Region Environmentalist

TO: GEORGE RAMJOUE
Project Coordinator

SUBJECT: PROJECT ASSESSMENT
Progress Interchange
Off-Ramp to Scholls Ferry Road
Washington County

Attached is the subject assessment. It appears that since the interchange has controlled access, a Type 1A noise report will be needed. Noise is not likely to be a problem in this project, due to the lack of significant sensitive receptors at the project site, existing high background noise levels from Highway 217, and probable noise reductions in the Progress area.

RECEIVED
COUNTY & CITY SECTION
JUL 27 1976
☐ ENGR. ☐ COOR. ☑ CE ☐ LAE ☐ UE
☑ UPE ☑ CE ☐ RE ☑ RPE ☐

CM/lms
Attachment
cc: Frank Terpin
George Hopkins

PROJECT MANAGEMENT
JUL 27 '76
REFER TO
FOR
Info | Investigate | R/D | Action | File | Letter | See me

8952

144

Salem, Oregon
February 13, 1976

J. H. Versteeg
Road Design Engineer

Mr. E. S. Hunter
Assistant State Highway Engineer

Southbound Off-Ramp to
Scholls Ferry Road
Progress Interchange
Beaverton-Tigard Highway
Washington County

Attached is correspondence from Ed Hardt concerning a possible added ramp to Scholls Ferry Road which you requested we check out for feasibility.

This basic plan originated in the Design Section and has the blessing of the Planning Section to release a bad situation. With proper signal ties between the ramp terminals and the access road to GAF it will operate adequately and will ease the traffic congestion on Hall Boulevard and Scholls Ferry Road which presently exists.

The field estimate has been checked and we would feel more comfortable with a figure of $313,000 for construction and right of way.

The plan will cause no weave problems on the Beaverton-Tigard Highway and it is recommended for construction if funds can be made available.

DMS:ez
cc: Ed Hardt

8952

STATE OF OREGON
Department of Transportation

INTER-OFFICE MEMO

TO: Edward L. Hardt
Region I Engineer

DATE: January 14, 1976

File No.: HWY 144

FROM: John Hanks
Project Analysis Manager

SUBJECT: Progress Interchange
Southbound Off-Ramp to Scholls Ferry Road

In a previous letter dated December 1, 1975 regarding several proposed connections in the Progress Interchange area, a design concept for the off-ramp to Scholls Ferry Road was discussed. The diagram showing this concept was attached as Figure IV to that report and is also an attachment to this report as Figure IV. As pointed out in the previous report, that design lacked deceleration and storage distance for the off-ramp and also created more delays to GAF employees.

Latest Design Concept

A traffic count taken December 8-9, 1975 at the existing GAF access to Scholls Ferry Road was utilized to analyze the latest design concept, attached to this report as Figure V. The 1975 P.M. peak hour and peak 15 minute period were the two periods used to calculate levels of service for the two intersections. This proposed design would separate the off-ramp traffic from the GAF traffic and provide ample deceleration and storage distance for the off-ramp and also the GAF approach. A three-phase, fully-actuated controller would be required to handle the movements at both intersections. This controller would allow overlapping movements to take place at the intersections, affording a "B" level of service for present traffic during the peak 15 minute period. During off-peak periods the operation of the signal would be essentially a two-phase type, with Scholls Ferry Road and the off-ramp being the two major movements. Future traffic (1995) is expected to drop the service level to "D", with the left turn from Scholls Ferry Road to the southbound on-ramp as the anticipated problem. This turn may require a separate lane and signal at some later date.

An estimate of cost from the Traffic Section places the signalization of these intersections at approximately $70,000. The existing semi-actuated signal would be removed and the existing inter-connection to the system north on Scholls Ferry Road would be severed. This severance should not be a problem as the distance between the existing signals (approximately 1,400') does not adapt to good progressive movements at any rate.

In summary, the proposed southbound off-ramp to Scholls Ferry Road should be kept separate from the GAF access road. The design of Figure V provides acceptable operational conditions for both the off-ramp and the access road.

assuming a signal controller is installed interconnecting both intersections. The major benefit of the off-ramp is reduced travel time for southbound traffic destined to Scholls Ferry Road and the traffic reduction through the series of signalized intersections required with the existing traffic routing.

JH:smh
Attachments
cc: J. H. Versteeg w/attach.
L. E. George w/attach.

1 Versteeg
2 Olson
Terpin
Scott
Swenson
Anderson
Trout

RECEIVED
JAN 14 1976
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Wring Up ___/___/___
Other

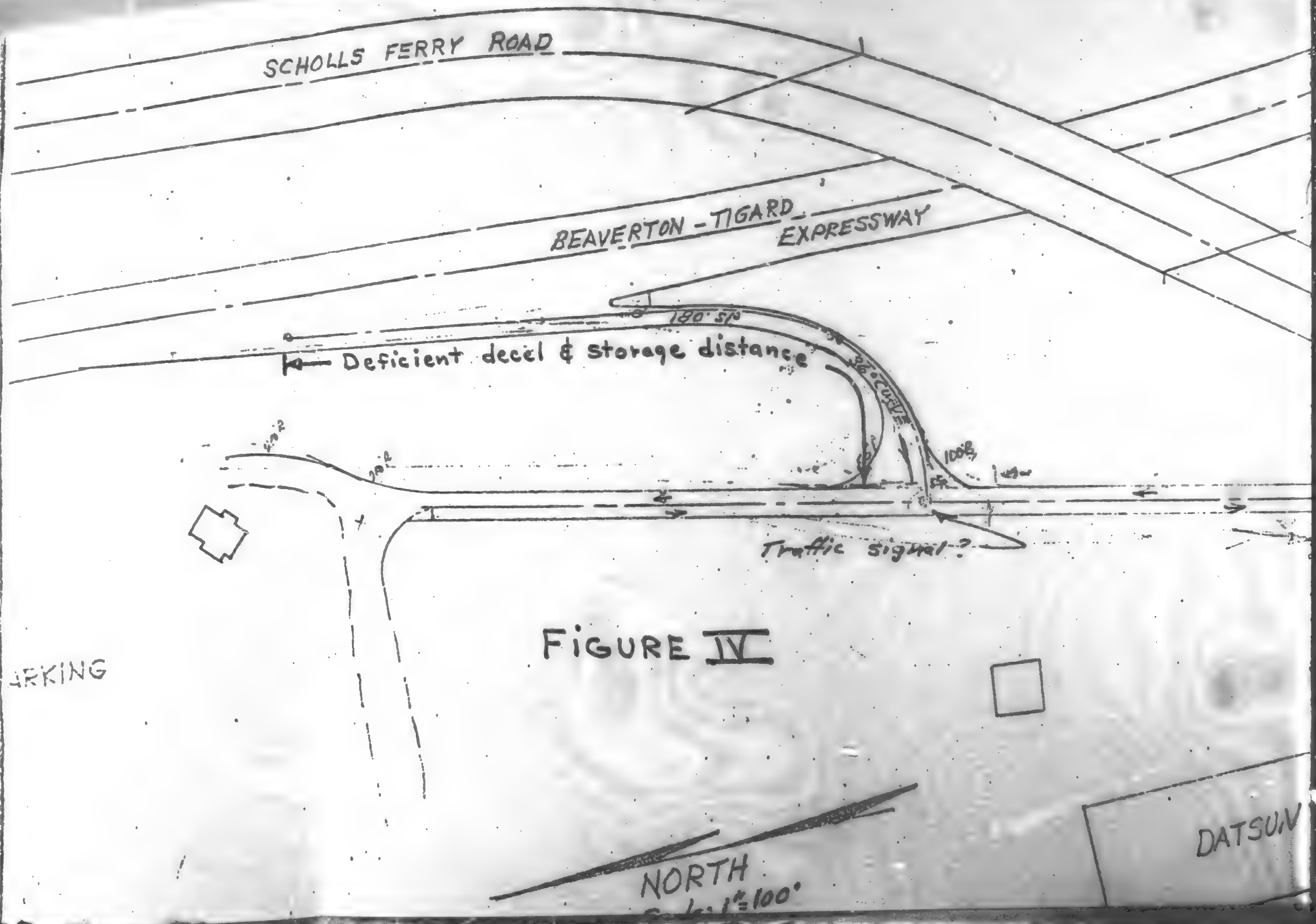

SCHOLLS FERRY ROAD
BEAVERTON - TIGARD EXPRESSWAY
180' SF
Deficient decel & storage distance
100'
Traffic signal ?
NORTH
DATSUN

FIGURE IV

SCHOLLS FERRY ROAD

TO T

BEAVERTON - TIGARD EXPRESSWAY

180' SR

← Deficient decel & storage distance

30'

100'

Traffic signal ?

FIGURE IV

DATSUN BLDG

NORTH

1" = 100'

Datsun Bldg.

Ferry Rd.

55 R

55 R

Interconnect signals

150'

Access Road

Exg. R/w

10'

55 R

Proposed Off-ramp

Glare screen

250' SR

Bayshore Freeway Expwy.

Figure X

Proposed D

XXX = 1975 A.M. P

(XXX) = 1975 P.M. P

[XXX] = 1975 Peak 15

on an hour

(4 x 15 min.) =

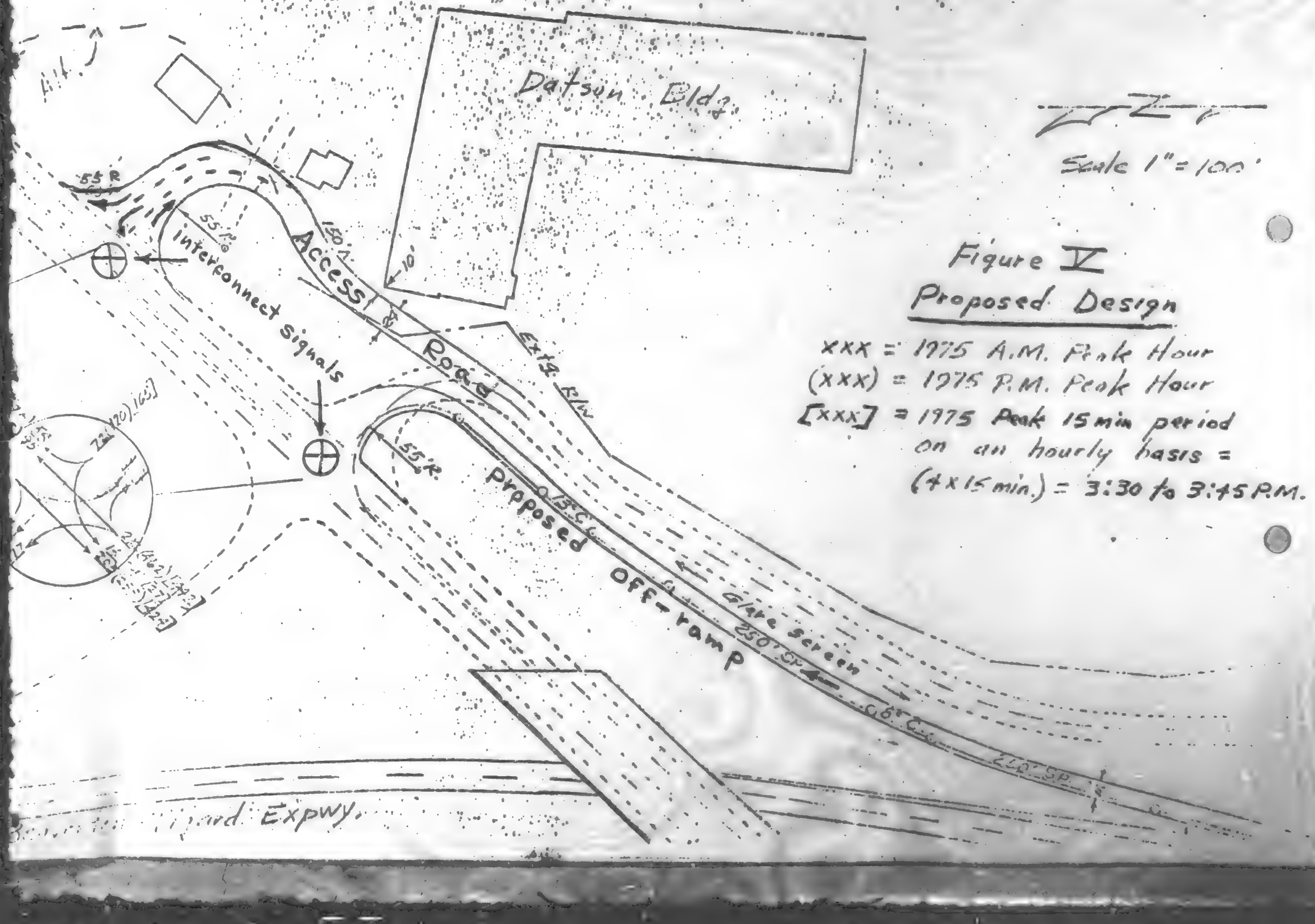


Figure V

Proposed Design

XXX = 1975 A.M. Peak Hour

(XXX) = 1975 P.M. Peak Hour

[XXX] = 1975 Peak 15 min period on an hourly basis = (4 x 15 min.) = 3:30 to 3:45 P.M.

8952

STATE OF OREGON
Department of Transportation

INTER-OFFICE MEMO

TO: Edward L. Hardt
Region 1 Engineer

DATE: December 1, 1975

File No.: Hwy. 144 (Beaverton-Tigard)

FROM: John Hanks
Project Analysis Manager

SUBJECT: Progress Interchange

An assignment of 1990 traffic volumes within the Progress Interchange was made incorporating the additional ramps and revised GAF Access as proposed by the City of Beaverton. See Figure I. The 1990 loadings were based on the Interim Transportation Plan land use forecasts and transportation improvement recommendations.

The Interim Transportation Plan improvements include the following:

1. Allen Avenue Interchange
2. Denny Road Interchange
3. East-West Arterial (Hall Boulevard-173rd Avenue)

Figure II shows 1974 ADT (existing traffic) and projected 1990 ADT with the improvement proposals. The 1990 traffic is significantly influenced by the rate of growth forecasted for the area north of Scholls Ferry Road extending westerly from the Beaverton-Tigard Highway to 145th Avenue. This area is estimated to grow in population (CRAG forecasts) from approximately 2,800 in 1975 to 15,000 by 1990. The traffic increases expected from such a significant growth rate will exceed the capacity of existing transportation facilities and add to the traffic congestion that is already occurring at the signalized intersections within the interchange area.

The following comments apply to the interchange improvements (Figure I) suggested by Beaverton.

1. Southbound Off-Ramp to Scholls Ferry Road

This off-ramp is a desirable improvement. Traffic currently must exit the off-ramp to Hall Boulevard and route via a series of signalized intersections to reach Scholls Ferry Road. The off-ramp would provide some relief to the signalized intersections and reduce travel time for traffic destined to Scholls Ferry Road. The traffic conflict with the existing GAF access road is of prime concern in constructing the off-ramp. Beaverton's plan recommends a road connection west of the railroad between Hall Boulevard and Scholls Ferry Road with a new access to GAF crossing the railroad tracks. This plan would allow the off-ramp to be constructed without conflict with the GAF access road, an important condition in maintaining operational safety of the ramp and expressway.

81-188-1367

2. Southbound On-Ramp From Hall Boulevard

A deficient and unsafe weave section would result between this on-ramp and the off-ramp to Scholls Ferry Road. Traffic destined southbound to the expressway should utilize the existing loop ramp in order to maintain an adequate weave length. Also, a southbound auxiliary lane should be provided connecting the existing loop ramp to the proposed off-ramp to Scholls Ferry Road so that safer weave movements can take place.

3. Northbound On-Ramp From Hall Boulevard

The provision of this ramp would require one more signalized intersection if access is allowed to Hall Boulevard from the west. Approximately one-half of the ramp traffic (2,000 ADT) makes a left turn from Hall Boulevard to enter the ramp. An additional signal will only add to the delays and congestion in the interchange area.

4. East-West Arterial: Hall Boulevard-173rd Avenue

Figure III shows two alternate locations for a future east-west arterial. Route "B", studied in this analysis, connects to Hall Boulevard and the Progress Interchange. Adding a ramp to improve the northbound access to the expressway will increase the capacity deficiency of the interchange. Refer to Item 3 above for comments.

I concur with the findings of the city engineer that the Progress Interchange is inadequate to accommodate the traffic demands of the Route "B" proposal. Alternate Route "A", via Denney Road, is a superior choice to route northbound traffic to the expressway. The Denney Road Interchange will have adequate capacity to accommodate projected traffic volumes. Route "A" is recommended in the Reconnaissance Report by the city engineer. Our analysis supports that recommendation.

5. Design Concept for Off-Ramp to Scholls Ferry Road

Accompanying a copy of your letter of November 14 to Mr. Wolfer was a design proposal (Figure IV) for an off-ramp to Scholls Ferry Road. I have the following comments regarding that design. The combined storage and deceleration distance for the off-ramp is shown as approximately 600 feet. Normally, a deceleration distance of 600 feet, plus storage distance requirements are recommended. Since the off-ramp terminates at a signalized intersection with the GAF access road, vehicle storage distance on the ramp will be required. It is apparent that the ramp length is too short to accommodate both deceleration and storage distance. Traffic backups onto the expressway would occur, creating a hazardous accident condition. Additional delays to GAF employees would also take place.

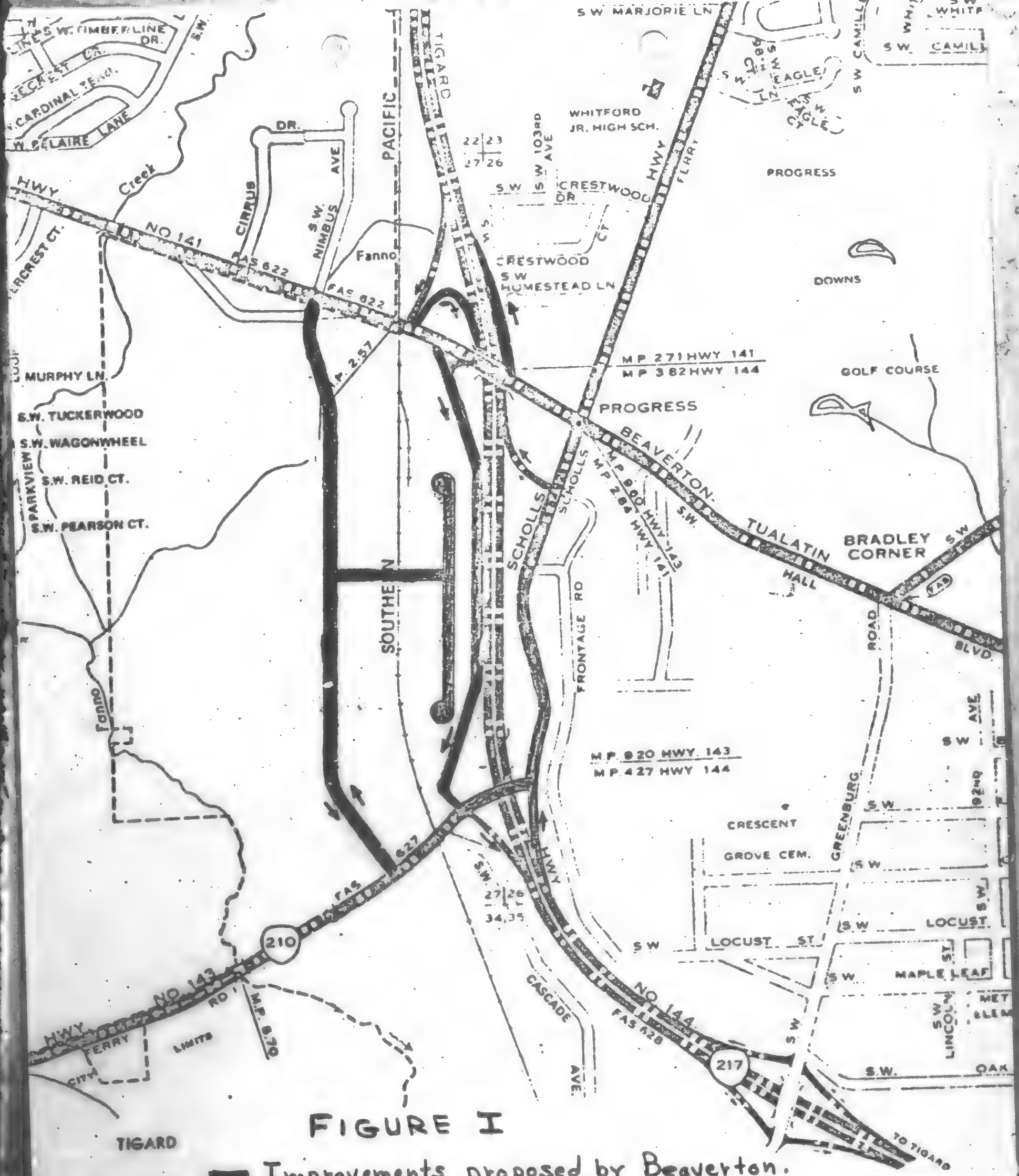


FIGURE I

▬ Improvements proposed by Beaverton.

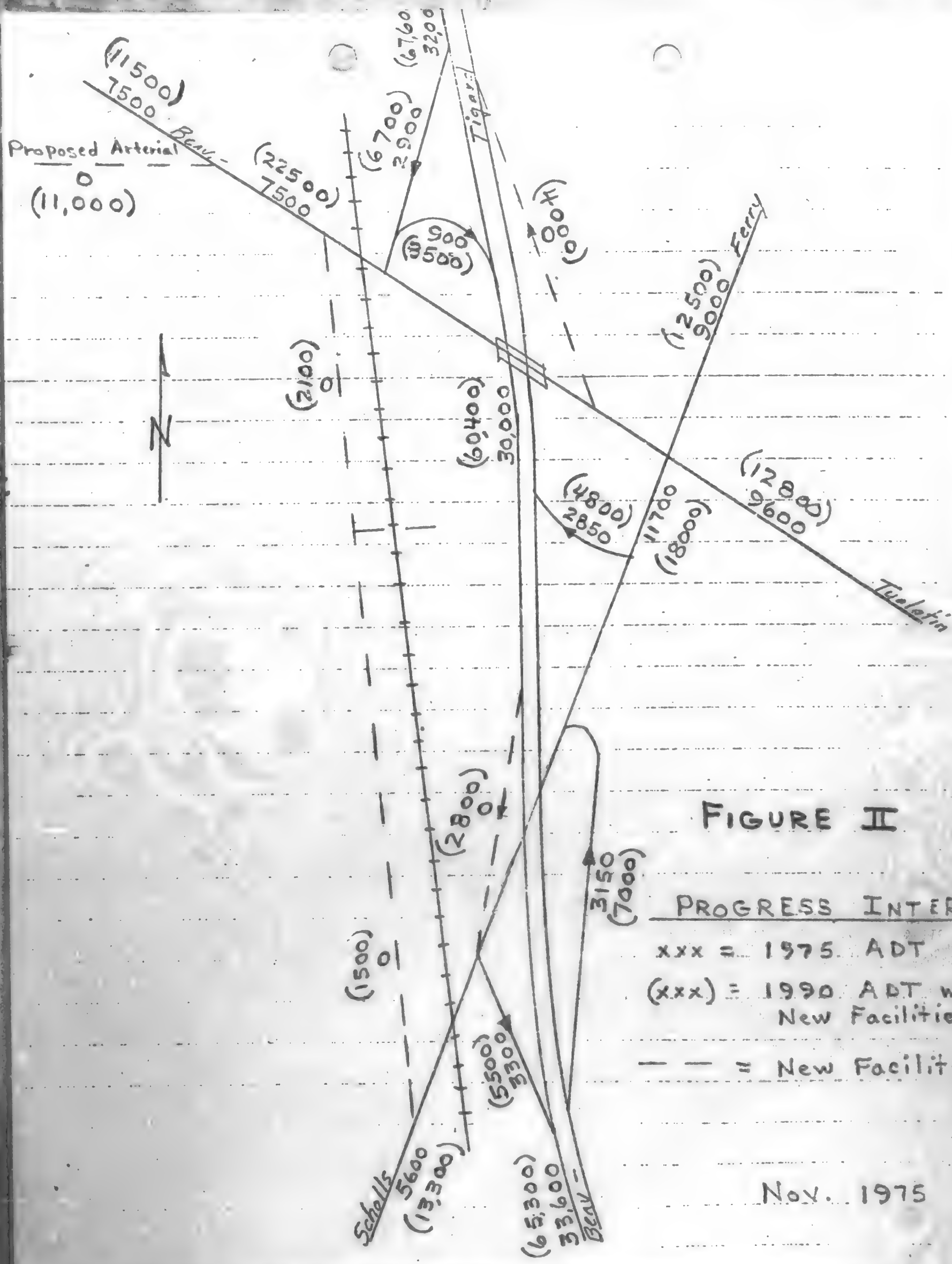


FIGURE II

PROGRESS INTER.

xxx = 1975 ADT

(xxx) = 1990 ADT with New Facilities

— — = New Facilities

NOV. 1975

EAST/WEST ARTERIAL

ROUTE A

FUTURE INTERCHANGE

BEGIN PROJECT

END PROJECT

BEGIN PROJECT

END PROJECT

ROUTE B

	PROPOSAL A	PROPOSAL B
LENGTH OF IMPROVEMENT	4420 L F	4890 L.F
RIGHT-OF-WAY REQUIRED	74-86 FT	74-86 FT.
TYPE OF IMPROVEMENT	4 LANE	4 LANE
NO. OF INITIAL INTERSECTIONS	8	5
NO. OF INITIAL INGRESS/EGRESS POINTS (D/W)	37	4
SPECIAL CONSTRUCTION PROBLEMS	ACCESS DURING CONST	ACCESS DURING CONST

FIGURE III

MAP A
ROUTE RECONNAISSANCE
SECTION A
EAST-WEST ARTERIAL
ENGINEERING DEPT. 14 APR. 75

SCHOLLS FERRY ROAD

BEAVERTON - TIGARD EXPRESSWAY

120' SF

← Deficient decel & storage distance

PE CURVE

100'S

PE

Traffic signal ?

KING

FIGURE IV

NORTH
Scale: 1"=100'

DATSUN

HOLLS FERRY ROAD

TO TIGARD

BEAVERTON - TIGARD EXPRESSWAY

180' SR

← Deficient decel & storage distance

CURVE

100'

TO SCH

Traffic signal ?

FIGURE IV

NORTH
Scale: 1"=100'

DATSUN BLDG

Beaverton-Tigard Hwy.
Wash. Co.

To analyze the traffic impacts of connecting the off-ramp to the GAF access road, I have requested a traffic count at Scholls Ferry Road and the access road intersection. After the count information is obtained, an analysis will be made and you will receive the results.

JH:ap
Attachments
cc: J. H. Versteeg

1 Versteeg
2 A. Olson
Terpin
Scott
Swenson
R. Olsen
Trout

RECEIVED
DEC - 2 1975
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up ___/___/___
Other

8752

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: MAI 12

Region 1 - Milwaukie

August 1, 1975

Edward L. Hardt

FROM: EDWARD L. HARDT
Regional Engineer

SUBJECT: OFF-RAMP STRIPING
BEAVERTON-TIGARD HIGHWAY
WASHINGTON COUNTY

TO: A. D. OLSON
Preliminary Design Engineer

We have your July 23 letter which suggested that we consider restriping for two lanes on the Beaverton-Tigard Highway off-ramps for Scholls Ferry Road, Tigard, and 72nd Avenue. Region Traffic Engineer Ron Failmezger has taken a look at these locations and his remarks are listed below.

Southbound Scholls Ferry Road
We have recently adjusted the signal timing to give more green time to the off-ramp, which should alleviate the problem denoted in your photograph which shows a long queue of traffic waiting to exit the freeway. There is some merit in striping for two lanes on this ramp to provide a right-turn lane and by copy of this letter District Engineer Bill Geibel is requested to do so.

Northbound Scholls Ferry Road
Due to the sharp curvature on this ramp, we are fearful that we would not be able to contain large vehicles on a two-lane ramp and so do not believe that this ramp should be so striped.

Northbound Tigard
Our vehicle count for this ramp is 1268 VPD. With this light traffic, we do not believe that two-laning is warranted.

Northbound SW 72nd Avenue
The ramp count here is 2002 VPD. Here again, we do not believe that two-laning this ramp is warranted.

We appreciate your bringing this to our attention and we welcome your suggestions regarding operation of the system at any time.

ELH/cr
cc Bill Geibel w/attachments

1 Versteeg ✓
2 A. Olson
Terpin
Scott
Swenson
R. Olson
Trout

RECEIVED
AUG - 4 1975
ROAD DESIGN SECTION

Requires Reply ☐
Requires Approval ☐
Receiver Keep ☐
Do not File ☐
Return To
Bring Up
Other

8952

144

Salem, Oregon
July 23, 1975

A. D. Olson
Preliminary Design Engineer

Beaverton-Tigard Highway
Washington County

Edward L. Hardt
Region I Engineer

Attached are xerox photos of two Scholls Ferry Interchange ramps, one at Tigard, and one at 72nd Avenue.

Do you think it might ease the traffic situation at any of these locations if you restriped the off-ramps to provide two lanes at the crossroads? At southbound Scholls Ferry you could provide one forced left turn and one optional by making the crossroad two lanes eastbound with a little patching.

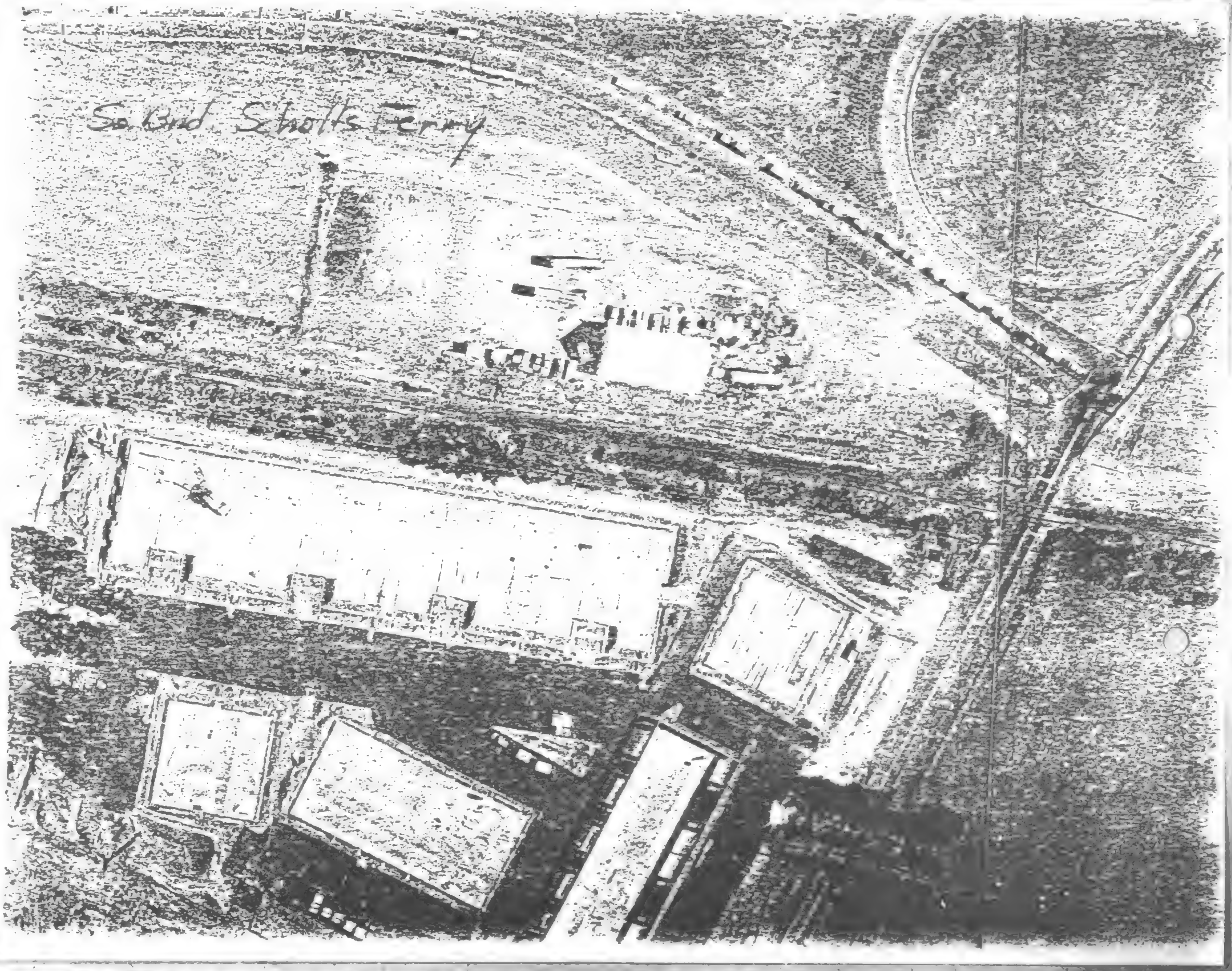
If this would do any good it would be worth the slight cost.

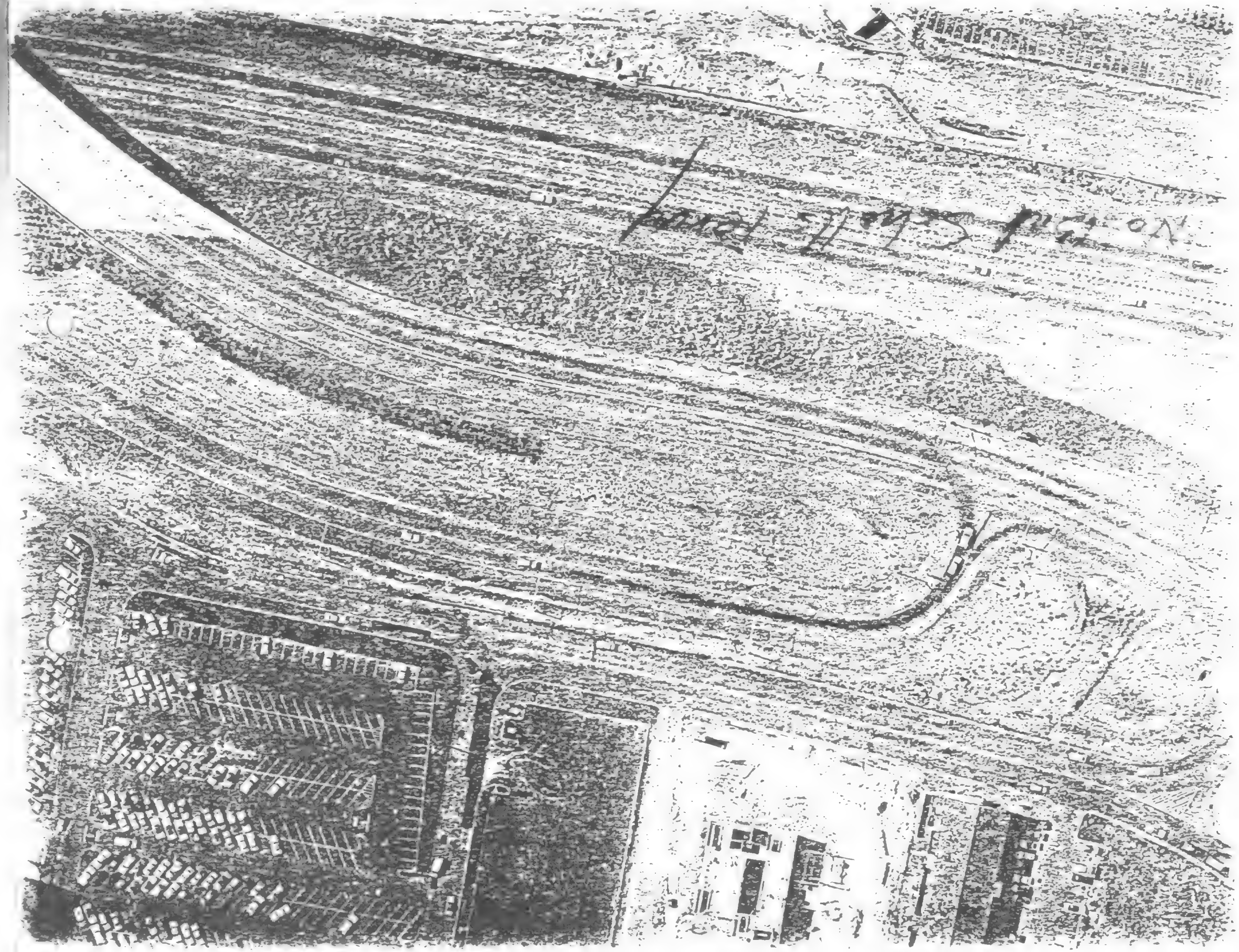
2 Attachments

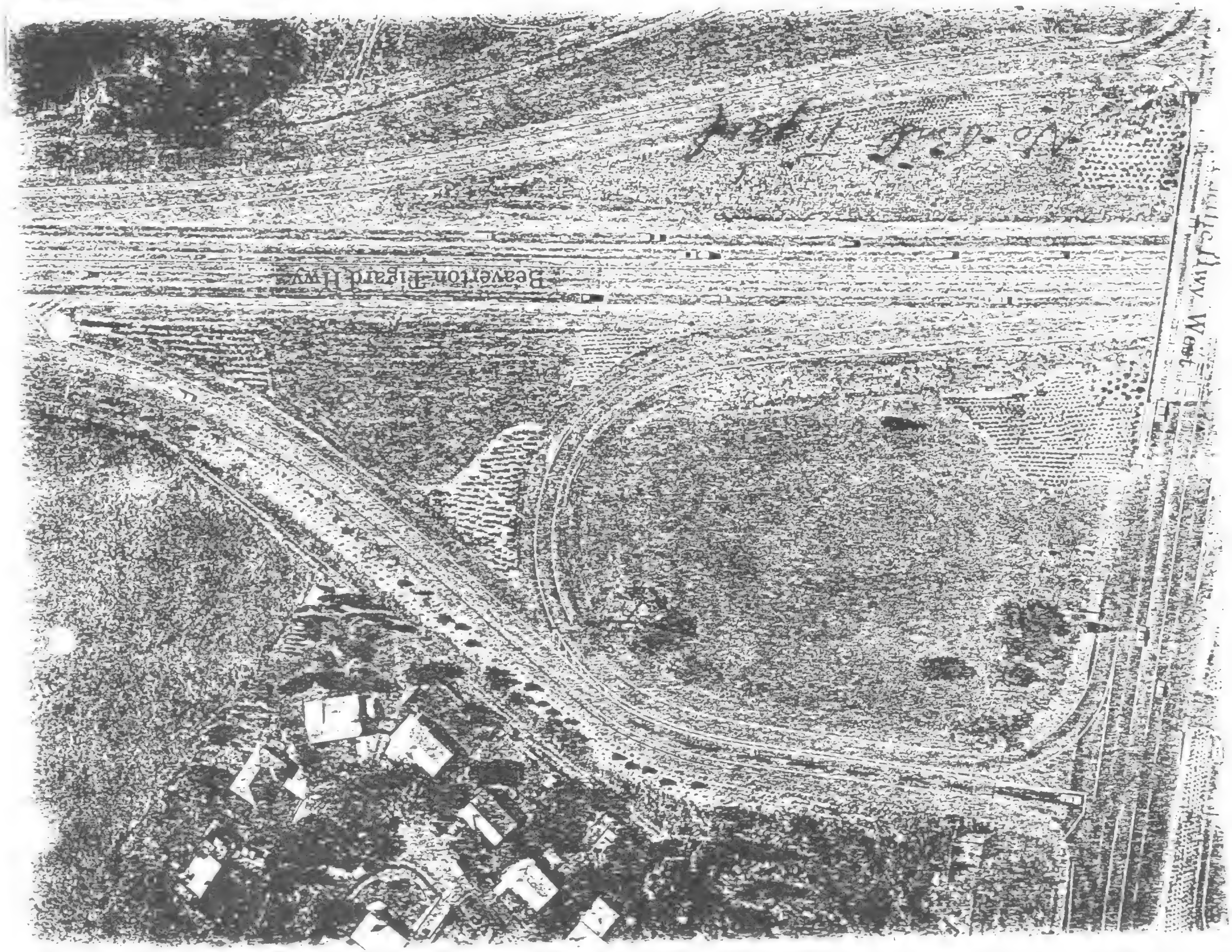
Verstoep ✓
A. Olson
Terpin
Scott
Swanson
R. Olson
Trout

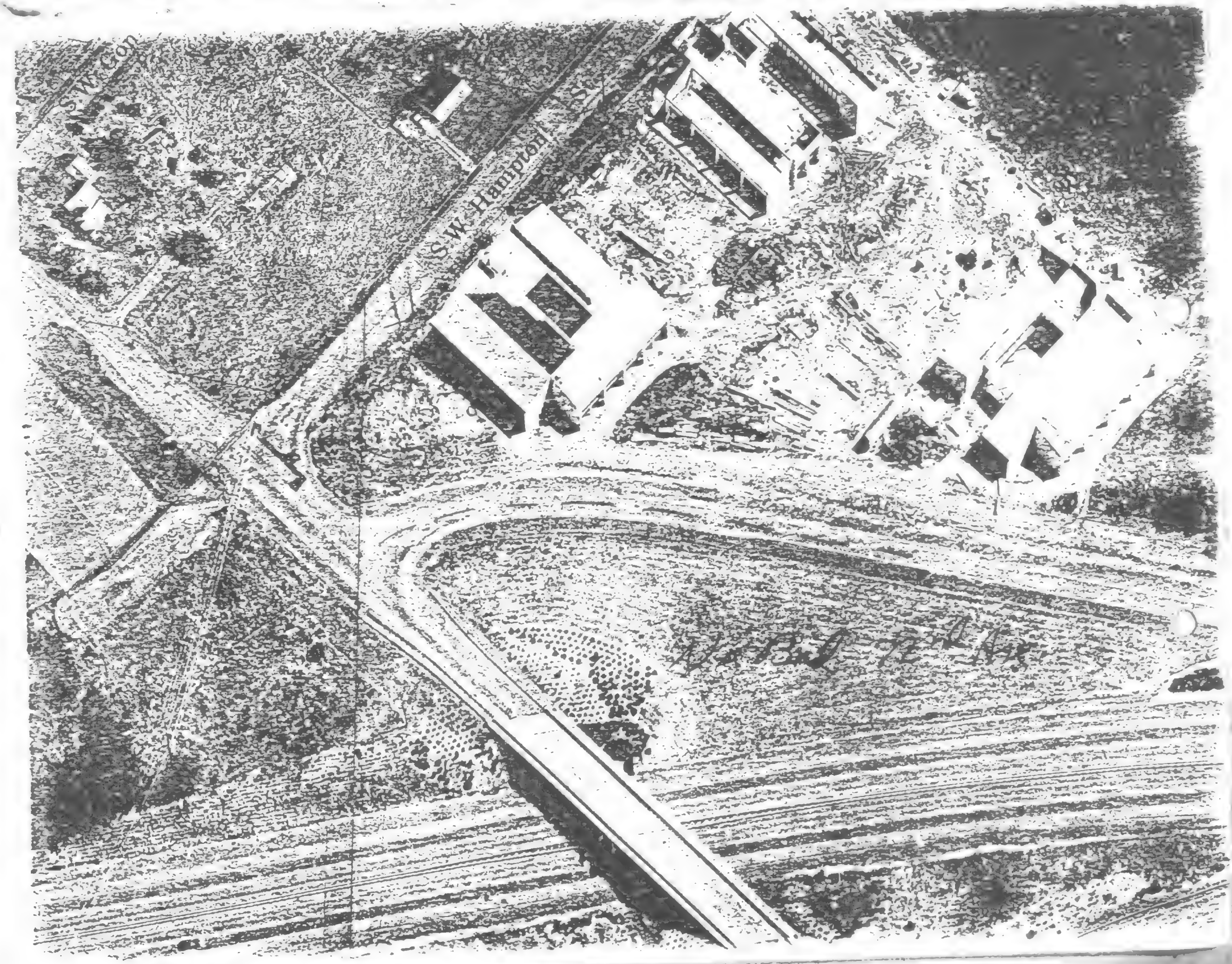
RECEIVED
JUL 24 1975
ROAD DESIGN SECTION

Return To
Bring Up
Other


So. End Shotts Ferry




Beaverton-Elgard Hwy
Tualatin-Sherwood Rd
Tualatin Valley Hwy
Tualatin-Sherwood Rd
Tualatin Valley Hwy
West


S.W. Hampton
Wood Hall

.1979 Shantko-The Dalles- 8953
.Cal. Sec. Sherman Hwy.
.(Oiling)

8953

S.C. 8953

4

STATE OF OREGON

INTEROFFICE MEMO

TO: R. C. Pool
Region Const. Engineer

DATE: July 14, 1980

FROM: John C. Jenkins
Engineer of Materials
by
James E. Wilson, Jr.
Asst. Engineer of Materials

Subject: Asphalt Penetration Macadam Cores and Cut Samples, Shaniko-The Dalles/Calif. Hwy. Jct.

Testing has been completed on eight cores and two cut samples from the 0-11 asphalt penetration macadam on the Shaniko-The Dalles/Calif. Hwy. Section. The samples were tested for gradation and asphalt content or reclaimed asphalt properties and the asphalt and aggregate quantities per square yard were calculated for the cut samples. Enclosed are laboratory reports #80-11449 through #80-11458.

The following are calculated quantities of aggregate and asphalt per square yard for the two cut samples:

	MP 62 (#80-11457)	MP 68 (#80-11458)	Revised 0-11 Standard
1½"-3/4"	.0165 yd³	.0151 yd³	.025 yd³
3/4-1/2"	.0110 "	.0080 "	.011 "
1/2-1/4"	.0114 "	.0109 "	.010 "
1/4"-#10	.0119 "	.0174 "	.009 "
Asphalt	1.276 gal.	1.643 gal.	1.30 gal.

The calculations show that the mat is deficient in 1½"-3/4" aggregate and the flushed areas contain more asphalt than the standard spread rate. With inadequate 1½ inch aggregate, there are insufficient voids in the mat for the amount of asphalt contained.

Asphalt was recovered from cores with and without surface flushing. Penetration and viscosity tests made on the recovered asphalt indicate that the properties of the binder are near those of the original material.

It appears that the surface flushing of the mat is the result of inadequate 1½ inch aggregate, excess asphalt and asphalt migration to the surface from moisture or oil distilate vapor pressure. Options for repair of the surfacing include rolling in ¼"-#10 chips when the weather is hot, burning off the excess asphalt or overlaying the fat areas with an open graded ¼"-#10 mix.

cc: H. S. Coulter
C. T. Keasey
Dale Allen
Dick Hawkins
R. J. Van Cleave

Contains Recycled Materials

8453

VICTOR ATIYEH
GOVERNOR

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

MATERIALS SECTION
SALEM, OREGON 97310

NOTED
H. S. COULTER

In Reply Refer to
File No MAT 4

copy
MAT 3
#8713

July 14, 1980

RECEIVED
STATE HWY ENGR
JUL 15'80
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Mr. Forrest E. Jones, Director
Marion County Road Department
5155 Silverton Road, NE
Salem, OR 97303

Dear Mr. Jones:

In response to your letter of 20 June 1980 to Rick Kuehn, enclosed is a copy of our recent revised table of details for Asphalt Penetration Macadam. The aggregate and asphalt spread rates for each type of macadam were calculated to provide the required quantities for typical aggregate now produced in Oregon.

It has been reported that 5 to 10 percent more aggregate is required on projects where more cubical aggregates are used and less aggregate is required with aggregates of less least dimension. With the use of impact crushed quarry aggregates we generally find that the quantities as calculated are about right.

For the use of emulsified asphalt rather than paving grade asphalt the quantities for asphalt spread must be multiplied by 1.5 to provide the same residual asphalt. However, it has been found that a spread rate of something like 1.1 to 1.2 times that calculated for paving asphalt seems to give adequate embedment without excessive emulsion runoff.

Penetration macadam of a double 0-9 type have been used for resurfacing on two of our recent contract projects. The use of a $^{3}/_{4}$ inch top size aggregate seems to lay better on a hard surface than the larger sized materials. The application rates used are .40 gal/yd^2 CRS-2, .018 yd^3/yd^2 $^{3}/_{4}$"-½" for the first spread; .30 gal/yd^2 CRS-2, .019 yd^3/yd^2 $^{3}/_{4}$"-½" for the second spread; .31 gal/yd^2 CRS-2, .012 yd^3/yd^2 ½"-¼" with .003 yd^3/yd^2 ½"-#10 choke for the third spread. The mat is allowed to cure 4 or 5 days before the seal of .25 gal/yd^2 CRS-2 and .011 yd^3/yd^2 ½"-#10 is applied.

Should you have questions regarding this information, give us a call or contact John Gunter our District Maintenance Engineer in Klamath Falls.

Very truly yours,

JAMES E. WILSON, JR.
Asst. Engineer of Materials

cc: H. S. Coulter
C. T. Keasey
Rick Kuehn

Form 734-3122

TYPE	O-31	O-32	O-33	O-30	DO-30	O-7	O-9	O-11
APPROX THICKNESS	1/4"	3/8	3/8	1/2"	5/8"	3/4"	7/8"	1 1/4"
	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE	SIZE
ASPHALT								
AGGREGATE								
ASPHALT								
AGGREGATE								
EMULS ASPHALT								
AGGREGATE								
TOTAL ASPHALT								
TOTAL EMULS ASPHALT								
AGGREGATE								
TOTAL AGGREGATE								

BASIC DATA

	ASPHALT	EMULSIFIED ASPHALT		CUTBACK ASPHALT			
		RS-1 CRS-	RS-2	MC-70 MC-250 RC-70	MC-800 MC-3000 RC-250	RC-800 RC-3000 MC-800	MC-3000
	237	210	240	240	253	249	245	241
	320	205	189	139	140	185	215	255
	420	235	244	246	240	260	223	258

ASPHALT PENETRATION MACADAM

File: CON 5
S.C. 8713

STATE OF OREGON

INTEROFFICE MEMO

TO: Marion Craft
Region Construction Engineer

DATE: July 14, 1980

FROM: John C. Jenkins
Engineer of Materials
by
James E. Wilson, Jr.
Asst. Engineer of Materials

Subject: Sampling of Asphalt Concrete on Mt. Hood & Warm Springs Hwy.

Twelve pavement locations have been marked on our Ski Bowl Frontage Rd.-Summit Meadows Rd. & Warm Springs Int.-Salmon River Curves Section and the adjacent FHWA Warm Springs Highway Section for an evaluation of the surface ravelling. The following is a listing of the suggested locations for sampling.

#1 MP 61.27 Westbound, Outside Wheel Track

#2 MP 61.27 Westbound, Shoulder

#3 MP 61.20 Eastbound, Middle Lane, Outside Wheel Track

#4 MP 61.20 Eastbound, Outside Lane, Outside Wheel Track

#5 MP 59.65 Westbound, Outside Wheel Track

#6 MP 59.65 Westbound, Outside Shoulder

#7 MP 59.05 Westbound, Inside Wheel Track

#8 MP 59.05 Westbound, Outside Wheel Track

#9 MP 59.05 Westbound, Shoulder

#10 MP 54.75 Eastbound, Outside Lane, Inside Wheel Track

#11 MP 54.75 Eastbound, Outside Lane, Outside Wheel Track

#12 MP 54.75 Eastbound, Outside Lane, Shoulder

Samples required from each of the twelve locations are three 4-inch diameter and three 6-inch diameter cores. The cores should be cut in a longitudinal direction starting at the location marked in the pavement.

cc: H. S. Coulter
C. T. Keasey
Ed Hardt
Emory Richardson

Contains Recycled Materials

File: CON 5
S.C. [illegible]3

STATE OF OREGON

INTEROFFICE MEMO

TO: R. C. Pool
Region Const. Engineer

DATE: July 14, 1980

FROM: John C. Jenkins
Engineer of Materials
by
James E. Wilson, Jr.
Asst. Engineer of Materials

Subject: Asphalt Penetration Macadam Cores and Cut Samples, Shaniko-The Dalles/Calif. Hwy. Jct.

Testing has been completed on eight cores and two cut samples from the 0-11 asphalt penetration macadam on the Shaniko-The Dalles/Calif. Hwy. Section. The samples were tested for gradation and asphalt content or reclaimed asphalt properties and the asphalt and aggregate quantities per square yard were calculated for the cut samples. Enclosed are laboratory reports #80-11449 through #80-11458.

The following are calculated quantities of aggregate and asphalt per square yard for the two cut samples:

	MP 62 (#80-11457)	MP 68 (#80-11458)	Revised 0-11 Standard
1¼"-3/4"	.0165 yd^3	.0151 yd^3	.025 yd^3
3/4-1/2"	.0110 "	.0080 "	.011 "
1/2-1/4"	.0114 "	.0109 "	.010 "
1/4"-#10	.0119 "	.0174 "	.009 "
Asphalt	1.276 gal.	1.643 gal.	1.30 gal.

The calculations show that the mat is deficient in 1¼"-3/4" aggregate and the flushed areas contain more asphalt than the standard spread rate. With inadequate 1¼ inch aggregate, there are insufficient voids in the mat for the amount of asphalt contained.

Asphalt was recovered from cores with and without surface flushing. Penetration and viscosity tests made on the recovered asphalt indicate that the properties of the binder are near those of the original material.

It appears that the surface flushing of the mat is the result of inadequate 1¼ inch aggregate, excess asphalt and asphalt migration to the surface from moisture or oil distilate vapor pressure. Options for repair of the surfacing include rolling in ¼"-#10 chips when the weather is hot, burning off the excess asphalt or overlaying the fat areas with an open graded ½"-#10 mix.

cc: H. S. Coulter
C. T. Keasey
Dale Allen
Dick Hawkins
R. J. Van Cleave

Contains Recycled Materials

Form 81-734-3063

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

Laboratory No. 80 11449

Data Sheet No.

Prefix 33-1121

Laboratory charge $ 40 —

Project SURFACE SEAL - THE DALLES/LONE HWY.

Highway

Contractor SUPERIOR ASPHALT & CONC. CO. No. 8953

Date received 6-12-80

Date reported July 14, 1980

Submitted by

Source of Material

Sampled or inspected at MP 57+00 9½' RT To be used

Sampled or inspected by Quantity represented Thickness - 1¼" - 1⅜"

Test results from 6" diameter cores.

Gradation: P 1" - 100 P 3/8" - 50 P #40 - 6

P 3/4" - 98 P 1/4" - 38 P #200 - 2.6

P 1/2" - 62 P #10 - 15 Asphalt Content - 3.0 *

Moisture content at time of extraction - 1.73 %

* Includes — % retention.

observed condition: Surface - Flushed

internal — very Thick coating in upper ¾"

95+% coating

REPORT TO:

- [ ] F.H.W.A.
- [X] Construction Engineer
- [ ] Maintenance Engineer
- [ ] Bridge Engineer
- [ ] Region Engineer
- [ ] Resident Engineer
- [X] District Engineer D. Hawkins
- [2X] Files

RECOMMENDATION:

Material as represented by this sample does, does not comply with specifications.

John C. Jenkins

Form 81-734-3088

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

Laboratory No. HO 11450
Data Sheet No.
Bituminous Cores - Asphalt Penetration
Prefix 33-1121
Project Sumpter - Tie Creek Loop Hwy.
Laboratory charge # 124-
Highway
Contractor Superior Asphalt & Conc. Co. No. 8253
Date received 6-12-80
Submitted by
Date reported July 14, 1980
Source of Material O-11 Asphalt Penetration Macadam
Sampled or inspected at MP 54+89 N.E. 7½' RT To be used Surfacing
Sampled or inspected by Quantity represented Thickness 1 ¼"-1 ⅜"

Recovered Asphalt by Abson Method (AASHTO - T-170) '55 modified

Penetration @ 77°F.	-	84
Kinematic Viscosity @ 275°F.	-	249
Absolute Viscosity @ 140°F.	-	982

Observed conditions: surface - flushed
internal — very thick coating in upper ½"
No coating on ½"+ aggregate

REPORT TO:

- ☐ F.H.W.A.
- X ☐ Construction Engineer
- ☐ Maintenance Engineer
- ☐ Bridge Engineer
- ☐ Region Engineer
- ☐ Resident Engineer
- X ☐ District Engineer D. Hawkins
- 2X ☐ Files

RECOMMENDATION:

Material as represented by this sample does not comply with specifications.

John C. Jenkins

Form 81-734-3080

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

Laboratory No. 80 11451

Data Sheet No. .....

PETERSONS ZONES - Asphalt Pen Macadam Prefix 23-1021

Project Surface - Various Locations Laboratory charge $ 40 -

Highway .....

Contractor Superior Paving Co. No. 6253 Date received 6-16-80

Submitted by ..... Date reported July 14, 1980

Source of Material 0-11 Asphalt Penetration Macadam

Sampled or inspected at Mill 22 - Prior Stk. To be used Surfacing

Sampled or inspected by ..... Quantity represented Thickness 1½"-1⅔"

Test results from 6" diameter cores.

Gradation: P 1" - 96 P 3/8" - 46 P #40 - 5
P 3/4" - 83 P 1/4" - 32 P #200 - 1.9
P 1/2" - 57 P #10 - 14 Asphalt Content - 10.8 *
Moisture content at time of extraction - 1.93 %

* Includes — % retention.

Observed condition: Surface slight flushing
interval - Thick coating in upper ½"
30% coated, 1"+ appears uncoated

REPORT TO:

- ☐ F.H.W.A.
- X☐ Construction Engineer
- ☐ Maintenance Engineer
- ☐ Bridge Engineer
- ☐ Region Engineer
- ☐ Resident Engineer
- X☐ District Engineer D. Hawkins
- 2X☐ Files

RECOMMENDATION:

Material as represented by this sample does, does not comply with specifications.

John C. Jenkins

Form 81-734-3000

OREGON HIGHWAY DIVISION

BR 11452

MATERIALS SECTION LABORATORY RECORD

Data Sheet No. 33-1121

Bituminous Conc. 5-Asphalt Penetration

Project SUNRISE - Fair Drive/Oatfield Hill

Laboratory charge $ 121 —

Highway

Contractor SUBLIMITY ASPHALT & CONC. CO. No 3253

Date received 6-11-80

Submitted by

Date reported July 14, 1980

Source of Material 0-11 Asphalt Penetration Macadam

Sampled or inspected at MP 6.4-7.1 20 Lt

To be used Surfacing

Sampled or inspected by

Quantity represented Thickness 1½" - 1¾"

Recovered Asphalt by Abson Method (AASHTO - T-170) '55 modied

Penetration @ 77°F. - 75

Kinematic Viscosity @ 275°F. - 300

Absolute Viscosity @ 140°F. - 1119

Observed condition: surface - raw asphalt ½" Thick
internal — 50% coated — ½" + aggregate uncoated

RECOMMENDATION:

Material as represented by this sample does does not comply with specifications.

X Construction Engineer
Maintenance Engineer
Bridge Engineer
Region Engineer
Resident Engineer
X District Engineer D. Hawkins
2X Files

Justin C. Jacobsen

Form 81-734-3000

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

80 11453

Laboratory No. .....
Data Sheet No. .....
Prefix .....
Laboratory charge $ 40 --

Project CRATER LAKE - TIA 1(22)5 ICRUSH ...
Highway .....
Contractor SUPERIOR ASPHALT & PAVING CO. No. 3953
Submitted by .....
Source of Material 0-11 Asphalt Penetration Macadam
Sampled or inspected at MP 45.20 NORTH
Sampled or inspected by .....
To be used Surfacing
Quantity represented Thickness - 1¼" - 1⅞"
Date received 6-12-80
Date reported July 14, 1980

Test results from 6" diameter cores.

Gradation: P 1" - 100 P 3/8" - 64 P #40 - 7
P 3/4" - 87 P 1/4" - 48 P #200 - 2.4
P 1/2" - 76 P #10 - 20 Asphalt content - 9.7 *
Moisture content at time of extraction - 1.63 %
* Includes —— retention.

Observed condition: Surface - slight flushing
internal — 70% coated - 1" + aggregate uncoated

REPORT TO:

- [ ] F.H.W.A.
- X [ ] Construction Engineer
- [ ] Maintenance Engineer
- [ ] Bridge Engineer
- [ ] Region Engineer
- [ ] Resident Engineer
- X [ ] District Engineer D. Hawkins
- 2X [ ] Files

RECOMMENDATION:

Material as represented by this sample does, does not comply with specifications.

John C. Jenkins

Form 81-734-3000

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

Laboratory No. 11454.

Data Sheet No. .....

Prefix 33-14-1

Laboratory charge $ 5.00

Project [illegible] – Asphalt Pavement

Highway .....

Contractor [illegible] No. 1953

Date received 6-[illegible]

Submitted by .....

Date reported July 14, 1960

Source of Material 0-11 Asphalt Penetration Macadam

Sampled or inspected at [illegible] To be used Surfacing

Sampled or inspected by ..... Quantity represented Thirteen-1/4-inch

Test results from 6" diameter cores.

Gradation:	P 1" - 98	P 3/8" - 55	P #40 - 6		
	P 3/4" - 76	P 1/4" - 43	P #200 - 2.2		
	P 1/2" - 63	P #10 - 17	Asphalt Content - 9.3 *		

Moisture content at time of extraction - 1.51 %

* Includes – – % retention.

observed condition: Surface - slight flushing interval – 95+% coated – High asphalt content in upper ½"

REPORT TO:

- ☐ F.H.W.A.
- X ☐ Construction Engineer
- ☐ Maintenance Engineer
- ☐ Bridge Engineer
- ☐ Region Engineer
- ☐ Resident Engineer
- X ☐ District Engineer R. Hawkins
- 2X ☐ Files

RECOMMENDATION:

Material as represented by this sample does, does not comply with specifications.

John C Parkin

Form 81-734-3000

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

Laboratory No. 80 11455
Data Sheet No. .....
Prefix 33-1121
Laboratory charge 3-10-

PETTINGER -Asphalt Pavement Maradam

Project Sunset - Tillamook
Highway .....
Contractor Superior Construction Co. No. 3-3
Submitted by .....
Source of Material 0-11 Asphalt Pavement Maradam
Sampled or inspected at Pettinger Plant
Sampled or inspected by .....

Date received 6-12-80
Date reported July 14, 1980
To be used Surfacing
Quantity represented Thickness 1¼" - 1⅜"

Test results from 6" diameter cores.

Gradation: P 1" - 97 P 3/8" - 67 P #40 - 8
P 3/4" - 83 P 1/2" - 52 P #200 - 3.0
P 1/2" - 75 P #10 - 22 Asphalt Content - 5.1*
Moisture content at time of extraction - 2.24 %
* Includes —— % retention.

observed condition: Surface - slight flushing
Internal — 80% coated - some uncoated aggregate ½"+.

REPORT TO:

- [ ] F.H.W.A.
- [X] Construction Engineer
- [ ] Maintenance Engineer
- [ ] Bridge Engineer
- [ ] Region Engineer
- [ ] Resident Engineer
- [X] District Engineer D. Hawkins
- [2X] Files

RECOMMENDATION:

Material as represented by this sample does does not comply with specifications.

John C. Jackson

Form 81-734-3089

OREGON STATE HIGHWAY DIVISION
MATERIALS SECTION LABORATORY RECORD

BB 11456

Laboratory No. .....

Data Sheet No. .....

BITUMINOUS CORES — Asphalt Penetration Macadam Prefix 32-11-1

Project [illegible] Laboratory charge 3-10

Highway .....

Contractor [illegible] No. [illegible] Date received .....

Submitted by ..... Date reported July 14, 1980

Source of Material 0-11 Asphalt Penetration Macadam

Sampled or inspected at [illegible] To be used Surfacing

Sampled or inspected by ..... Quantity represented Thickness - 1¼" - 1¾"

Test results from 6" diameter cores.

Gradation: P 1" - 96 P 3/8" - 52 P #40 - 7

P 3/4" - 79 P 1/4" - 42 P #200 - 2.5

P 1/2" - 62 P #10 - 21 Asphalt Content - 8.7 *

Moisture content at time of extraction - 1.7%

* Includes ____ retention.

Observed condition: Surface — slight flushing
internal — 50% coated — ½" + aggregate
uncoated

REPORT TO:

- [ ] F.H.W.A.
- X [ ] Construction Engineer
- [ ] Maintenance Engineer
- [ ] Bridge Engineer
- [ ] Region Engineer
- [ ] Resident Engineer
- X [ ] District Engineer D. Hawkins
- 2X [ ] Files

RECOMMENDATION:

Material as represented by this sample does, does not comply with specifications.

John C. Jantzen

Form 5-69 M-7-63

OREGON STATE HIGHWAY DEPARTMENT
MATERIALS DIVISION LABORATORY RECORD

Laboratory No. SI 11457
Data Sheet No.
Prefix
Amount charge $ 16.00
Dept. invoice No.
Date received 6-30-80
Date reported July 14, 1980

Cut Sample - Sieve ... 1" Max Aspen Fault
Project Sumpter-Tie Canal-Con. No. 404
Highway
Contractor Superior Paving - Conc. Co. No. 8253
Submitted by
Source of material 0-11 Asphalt Penetration Macadam
Sampled or inspected at STA 11+00 P62 N.B. To be used Surfacing
Sampled or inspected by Quantity represented Tot. Thickness - 1⅓" - 1⅔"

Test results

	P 1¼"	100		
Gradation:	P 1" - 85	P 3/8" - 48	P #40 - 5	
	P 3/4" - 70	P 1/4" - 34	P #200 - 2.0	
	P 1/2" - 53	P #10 - 14	Asphalt Content - 3.0 *	

Moisture content at time of extraction - 1.64 %

* Includes — % retention

Recovered asphalt by Abson Method (AASHTO - T-170) '55 modified

Penetration @ 77° F.	—	84
Kinematic Viscosity @ 275° F.	—	248
Absolute Viscosity @ 140° F.	—	931

Loss on Heat Test — Specific Gravity — 2.31

Observed condition: Surface — slightly flushes but Good
internal — 60% coated - mostly ½" ↑
uncoated.

REPORT TO:

- 0 Bureau of Public Roads
- X 0 Construction Engineer
- 0 Maintenance Engineer
- 0 Bridge Engineer
- 0 Requisition Office
- 0 Division Engineer
- 0 Resident Engineer
- X 0 Dist. Maint. Supt. D. Hawkins
- 0 Foreman
- 2X 0 Files

RECOMMENDATION:

Material as represented by this sample suitable for use.

John C. Jackson

Form E-69--10M- 7-63

OREGON STATE HIGHWAY DEPARTMENT
MATERIALS DIVISION LABORATORY RECORD

Laboratory No. ON 11458
Data Sheet No.
Prefix 53-1121
Amount charge # 164—
Dept. Invoice No.
Date received 6-12-80
Date reported July 14, 1980

Project Bituminous Mix - Asphalt for Maint. Sanitation - The Dalles/Lone Pine Hwy.
Highway
Contractor Superior Asphalt - Conc. Co. No. 5225
Submitted by
Source of material 0-1 Asphalt Penetration Macadam
Sampled or inspected at 4.30 N. MP 68 NB. To be used Surfacing
Sampled or inspected by Quantity represented Thickness: 1¼"-1⅜"

Test results: P 1¼" - 100

Gradation: P 1" - 96 P 3/8" - 54 P #40 - 5
P 3/4" - 74 P 1/4" - 44 P #200 - 2.0
P 1/2" - 61 P #10 - 16 Asphalt Content - 10.7 *

Moisture content at time of extraction - 1.84 %

* Includes — % retention

Recovered asphalt by Abson Method (AASHTO - T-170) '55 modified

Penetration @ 77° F. — 82
Kinematic Viscosity @ 275° F. — 259
Absolute Viscosity @ 140° F. — 968

AASHTO T 209 Maximum Specific Gravity - 2.23

Observed condition: surface — flushed
Internal — 50% coated - ½"+ uncoated

REPORT TO:

0 Bureau of Public Roads
X 0 Construction Engineer
0 Maintenance Engineer
0 Bridge Engineer
0 Requisition Office
0 Division Engineer
0 Resident Engineer
X 0 Dist. Maint. Supt. D. Hawkins
0 Foreman
2X 0 Files

RECOMMENDATION:

Material as represented by this sample ..... suitable for use.

D. C. Hawkins

8953

FIREMAN'S FUND
INSURANCE COMPANIES

Seattle Branch Office
2121 4th Avenue
Seattle, Washington 98121
Telephone (206) 587-3200

W. M. Ray
Resident Vice-President

April 29, 1980

State of Oregon
Department of Transportation
Attn: Mr. Robert W. Gormsen, Commission Services
Transportation Building
Salem, OR 97310

RE: OUR FILE NO: H860S-381574
BOND NO: SC 634 17 12
PRINCIPAL: Superior Asphalt and Concrete Company
OBLIGEE: State of Oregon
CONTRACT NO: 8953
CLAIMANT: Clifford Beach

Dear Mr. Gormsen:

This will acknowledge receipt of your letter claim for Mr. Clifford Beach in the amount of $4,700. Please be advised that we are contacting our principal at this time to determine the validity of the claim made and the intent with regard to our principal in handling it.

We have forwarded a copy of this letter to Mr. Beach directly.

If you have any further questions, please do not hesitate to contact this writer.

NOTED
R. W. GORMSEN

Sincerely yours,

THE AMERICAN INSURANCE COMPANY

Peter A. Fjellstad
Senior Claims Representative

PAF/B10615

cc: Clifford Beach
4528 SW 39th
Redmond, OR 97756

NOTED
TRAN NEAVOLL

RECEIVED
MAY 5 - 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

Subsidiaries of

8953 5422

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

RECEIVED
APR 16 1980
NORMA PAULUS
SECRETARY OF STATE

April 14, 1980

IN REPLY REFER TO
FILE NO.:

Mr. Clifford Beach
4528 S. W. 39th
Redmond, OR 97756

Telephone 548-1213

FILED
APR 16 1980
NORMA PAULUS
SECRETARY OF STATE

Dear Mr. Beach:

We have received your letter which outlines your claim for payment against Contract No. 8953 for hauling material and equipment in the amount of $4,700.00. The prime contractor is Superior Asphalt & Concrete Co., and the job was on the Shaniko-The Dalles/California Highway in Sherman County. The job was completed on October 18, 1979, and accepted January 3, 1980.

We are forwarding your letter, which is your Notice of Claim, to the Secretary of State's office for official filing.

The prime contractor and the surety will be notified by receiving copies of this letter.

Please advise this office when the claim has been settled.

Sincerely,

Robert W. Gorman
COMMISSION SERVICES

RECEIVED
APR 18 19[illegible]
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

cc: The American Insurance Company
P. O. Box 034201
Seattle, Wn. 98124

cc: Superior Asphalt & Concrete Company
2000 Beech Street
Yakima, WA 98901

bc: Jack Sollis

Hon. Norma Paulus
P. S. Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

Noted on card 4-14-80 dmc

April 7, 1980

Robert Gorman
Dept. of Transportation
Room 121, Transp. Bldg.
Salem, Ore. 97310

Dear Sir:

In Re: Contract #8953

The contract was finished October 8, 1979 and approved Jan. 3, 1980 by the Highway Commission. The contractor was Superior Asphalt, 2000 Beach St., Yakima, Wash.. The contract was an oiling job, Wasco County, section of Shaniko to The Dalles, Ore., Calif. Hwy..

I was hired by sub contractor Tom Tuss, to haul from the crusher to the stock pile. The job took 140 hrs. @ $32.50 per hr. amounting to $4,550.00, plus we moved a loader for Tuss from Shaniko, Ore. to Redmond, Ore., charges of $150.00. Total mount owing $4,700.00.

As of this date we have not received payment from Tom Tuss and would appreciate your help in filing a claim for these charges.

Yours truly,

Clifford Beach
4528 S. W. 39th
Redmond, Ore. 97756

RECEIVED
APR 8 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

8752

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

STATE HIGHWAY ENGINEER

2-6-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Superior Asphalt & Concrete Co., No. 8925	Lone Rock Jct.-Rock Creek, Gilliam County	January 3, 1980
Superior Asphalt & Concrete Co., No. 8953	Shaniko-The Dalles/Calif. Hwy., Wasco County	January 3, 1980
M & F Building, No. 8968	Brookings (Wharf St.), Curry County	January 7, 1980
St. Helens Paving, Inc., No. 8984	Columbia County Line-Buxton, Washington Co.	January 7, 1980
Willamette-Western Corp., No. 8788	Monitor Road Junction Project, Marion County	January 9, 1980
North Santiam Paving Co., No. 9010	Shaff Rd.-W. Washington St. (Stayton), Marion Co.	January 14, 1980
Ausland Const., Inc. No. 8845	Grandview Ave. @ Cloverlawn Dr. (Grants Pass Vicinity) Josephine County	January 14, 1980
Bomac Construction, Inc., No. 8876	Jantzen Beach Information Center, Multnomah County	January 17, 1980
Don Haisch Const. Co., No. 8988	Jantzen Beach Information Center, Multnomah County	January 17, 1980
North Santiam Sand & Gravel, Inc., No. 8885	Power Line-China Hollow Creek, Sherman County	January 18, 1980

Contractor and Contract No.	Section and County	Acceptance Date
Ross Bros. Construction, No. 8726	Upper Calapooia River Bridge, Linn County	January 22, 1980
Baker Redi-Mix, Inc., No. 8906	Auburn Ave. & Washington Ave. (Baker), Baker County	January 22, 1980
R. L. Coats, No. 8926	Madras/Prineville Hwy.- Culver Hwy., Jefferson Co.	January 23, 1980
Olson Electric Co., Inc., No. 8792	Hermiston Ave. @ SW Highland Ave. (Hermiston), Umatilla County	January 24, 1980
Morse Bros., Inc., No. 8833	6th, 8th & Quincy Sts. (Harrisburg), Linn County	January 30, 1980
Babler Bros., Inc., No. 8863	Del Rey Beach Access Rd.- Neawanna Creek, Clatsop County	January 30, 1980
Columbia West Matls. & Constructors, No. 8967	D St. - F St. (Rainier), Columbia County	January 30, 1980
Roy L. Houck Const. Co., No. 8796	Millican Creek (Lafayette), Yamhill County	January 30, 1980
Porter W. Yett Co., No. 8996	Troutdale (SW 7th St.), Multnomah County	January 30, 1980
Gervais Construction Co., No. 8807	Lone Tree Bar State Park, Marion and Yamhill Counties	February 5, 1980

February 6, 1980

H. S. Coulter, State Highway Engineer

8953

January 7, 1980

The American Insurance Company
2911 Second Avenue
Seattle, WA 98121

COM 5
Contract #8953

Gentlemen:

Contract No. 8953 awarded to Superior Asphalt & Concrete Company for oiling on the Shaniko-The Dalles/California Highway Section of the Sherman Highway in Wasco County was completed on October 16, 1979, and accepted by the State Highway Engineer on January 3, 1980.

Final payment in the amount of $25,872.10 will be released to the contractor after January 14, 1980. The total contract amount is $517,426.46 and no work was performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

Robert W. Cormsen
COMMISSION SERVICES

dms

cc: Superior Asphalt & Concrete Co. and
2000 Beech Street
Yakima, WA 98901

American Insurance Company
Attn: Fidelity & Surety Dept.
121 S.W. Salmon St., Suite 900
Portland, OR 97204

bc: C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Hacek
Dale Allen

NOTED
R.W. CORMSEN

#8953

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

ROBERT W. STRAUB
GOVERNOR

Vic Atiyeh

January 3, 1980

CON 5 #8953

Superior Asphalt & Concrete Company
Post Office Box 10268
Yakima, WA 98909

Gentlemen:

Re: Time Extension Request
Shaniko-The Dalles/California Hwy.
Contract No. 8953

Your request for an extension of contract time on the above project has been very carefully reviewed. A time extension of 14 calendar days is granted due to: (1) the added quantities of crushed aggregate and liquid asphalt covered by Price Agreement No. 1, and (2) the change from 3/4"-0 to 1/2"-0 prime coat cover aggregate.

Please contact District Engineer Hawkins if you wish a more detailed review of your request, or if you wish to submit additional data.

Sincerely,

C. T. Keasey
Assistant State Highway Engineer

By
O. B. Jackmond
O. B. Jackmond
Contract Administration Engineer

OBJ:fr

bc: H. S. Coulter
Dale Allen
Richard Hawkins
Robert Church

RECEIVED
STATE HWY ENGR
JAN 7 '80
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File ✓

Noted
H. S. COULTER

Form 81-734-3123 (Rev. 7-77)

STATE OF OREGON

INTEROFFICE MEMO
FILE: CON 5 #8953

Highway Construction
DEPT.

378-6318
TELEPHONE

TO: Memo to File

DATE: January 3, 1980

FROM: O. B. Jackmond
Contract Administration Engineer

SUBJECT: Time Extension Request
Shaniko-The Dalles/California Hwy.
Contract No. 8953

Superior Asphalt & Concrete Company, contractor on this State funded oiling project, has requested a 23 calendar day extension of contract time. Significant contract times and dates are:

Contract awarded	May 31, 1979
Contract time started	June 12, 1979
Work started	August 17, 1979
Contract time specified	100 calendar days
Time used	129 calendar days

The contractor claims a delay of 11 calendar days due to an 11 percent overrun of the crushed aggregate quantities, and a delay of two calendar days due to a 17 percent overrun of liquid asphalt. The contractor's basis of claimed delays is valid. The specified spread rates for liquid asphalt and crushed rock were changed and increased on this project by Price Agreement No. 1. A reasonable overrun of plan quantities is not normally a valid reason for an extension of contract time. However, in this case the contract specifications were changed by a contract amendment (Price Agreement) and an adjustment of contract time must be considered to the extent that the contract amendment affected contract time. According to project production rates, eight calendar days were required to crush the additional cover aggregates and two calendar days were required to spread the additional quantities of oil and rock. This time should be granted.

A delay of eight calendar days is claimed by the contractor due to an on site change of the prime coat cover aggregate specification. Again, the contractor's basis of claimed delay is valid. The contractor produced approximately 1,500 cubic yards of the specified 3/4"-0 prime coat cover aggregate. After the first day of shooting the prime coat, it became apparent that this particular cover rock was undesirable. The contractor was asked to rescreen the 3/4"-0 aggregate and to furnish 1/2"-0 cover rock for the remainder of the prime coat. This was done and the resultant time loss should be returned to the contractor. The contractor claims a delay of eight calendar days based on 2,900 cubic yards of 3/4"-0 material. Only about 1,500 cubic yards of 3/4"-0 had been produced when the change was made and therefore the contractor's

time request should be reduced to four calendar days. This agrees with the delay estimated by the Resident Engineer. Therefore, four calendar days should be granted for this change in specifications.

The contractor also claims a delay of two calendar days in producing additional 1/2"-0 prime cover aggregate. This claimed delay does not appear to be valid. The additional 1/2"-0 was a normal crusher by-product of oiling rock production. No delay was incurred and no time should be granted.

In summary, the contractor requested a 23 calendar day time extension and the above evaluation indicates that a time extension of 14 calendar days should be granted. There remains 15 days of liquidated damages on this contract.

OBJ:fr

cc: H. S. Coulter
Dale Allen
Richard Hawkins

7953

DEPARTMENT OF JUSTICE

Memorandum

TO: H. S. Coulter
State Highway Engineer

DATE: December 27, 1979

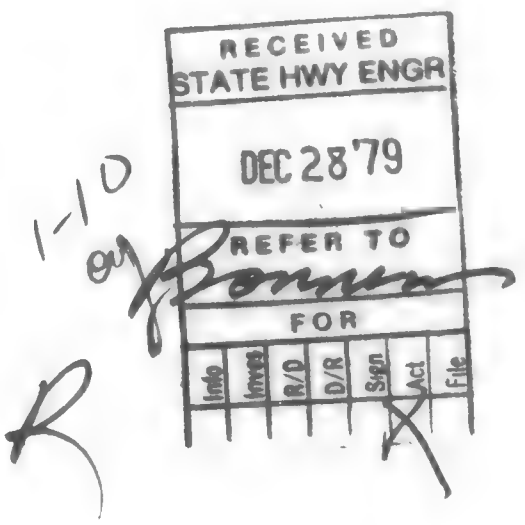
FROM: Jack L. Solis
Assistant Attorney General

SUBJECT: Complaint against Superior Asphalt and Concrete in Refusing to Pay a Claim for Property Damage to Automobile of Mr. R. Keith Wright.

I have reviewed the letter from the Governor to Mr. Wright and must advise you that the contractor is not guilty of breach of contract by refusing to pay Mr. Wright's claim. Mr. Wright has made a claim against the contractor indicating that he feels that the contractor was negligent in the way that he was conducting the work as a result of the contractor's negligence Mr. Wright's property was damaged. This is a dispute between Mr. Wright and the contractor and also the contractor's insurance company. The State has no right or obligation under the contract to get involved in this dispute. Although the State can encourage the contractor to handle these claims and to pay those that are valid, there is no way of requiring the contractor to make any payments and to place undue pressure on the contractor could possibly be a violation of the contract by the State. All the State can do is encourage the contractor to handle the claims and give them consideration and beyond that it has no authority under the contract. This is not any different than if the contract with Superior Asphalt and Concrete was with a private party. The State has no authority to interfere in a dispute between a private party and the contractor as to whether or not the contractor was negligent in a given situation.

copy to leg

JLS:sjb



1-10

RECEIVED
DEC 21 1979
LEGAL

RECEIVED
STATE HWY ENGR
DEC 20'79
REFER TO
Collis
FOR
Info | Inves | R/D | D/R | Sign | Act | File
Act ✓

December 17, 1979

R. Keith Wright
P.O. Box 136
Black Butte Ranch, OR 97759

Dear Mr. Wright:

I am sorry to hear that Superior Asphalt and Concrete has refused to process your claim for property damage to your automobile resulting from the oiling and graveling of Highway 97 by this firm. Under the terms of the contract, this company is responsible for the handling of claims for damages arising from work done under the contract. I understand that the Attorney General's Office (the Department of Justice) has tendered your claim to Superior Asphalt and Concrete.

Although the state can tender the claim to the contractor, the state has no authority to order him to pay. However, if the contractor elects not to pay the damages, common sense and decency would indicate that the denial be made after an investigation and after consultation with the contractor's insurance company. It appears from your version of the facts that Superior Asphalt and Concrete did not satisfy even these minimal standards. I find such an attitude unconscionable.

Perhaps you could achieve more satisfactory results by filing your claim directly with this contractor's insurance company, the American Insurance Company, 2911 Second Avenue, Seattle, WA, 98121. The specific policy number for this project is CAL 16-5183.

I am also asking the Department of Transportation to check into the facts to determine if a breach of contract exists and, if so, whether disqualification of Superior Asphalt and Concrete from future bids is warranted

Sincerely,

Victor Atiyeh
Governor

VA:rg

cc: [redacted]
Superior Asphalt and Concrete
bcc: Ken Bonnem

RECEIVED
DOT DIRECTOR
DEC 18 '79
REFER TO
Coulter
FOR
Info | Inves | R/D | D/R | Sign | Act | File
Act ✓

DOT

Brought [illegible]
for the Governor's signature
by 11-5
Thank you.

Oct 19 1979

PLEASE RETURN
ORIGINAL LETTER

Governor Victor Atiyeh
Office of the Governor
Salem, Oregon 97310

Dear Gov. Atiyeh;

I have met you on two separate occasions, one a fund raiser and your victory celebration that I attended with our mutual friend Bob Atkinson.

I'm writing you out of sheer frustration regarding bureaucracy in our state government and the lack of response of above to the citizens of Oregon.

TO WIT; See enclosures.

Today, after no response from the company in Yakima, I called Mr Kelms office again and was told that I should contact the pavers myself as his office should not do it as it might infringe on the legal dept, the hiway dept and their authority in such matters etc etc etc.

I pointed out that the State of Oregon carries more clout as a contractor than I do as a private citizen, but to no avail.

I called Yakima and was told very politely to go to hell with my claimand that thyy would do nothing about it. These are wonderful people we hire to work on our highways don't you agree ?

Gov. Atiyeh, where are my elected and appointed represenatives in Salem ?? Why does a citizen have to get such a run around ?? What happened to govt for the people ?? Are all the bureaucrats so busy doing whatever, that they have lost sight of why they are there in the first place ??

I am a very upset tax payer and as a last resort am asking for your help.

sincerely,

R. Keith Wright

R. Keith Wright

10/29
Jack Dallis
R/P for
Govt.
please

RECEIVED
DOT DIRECTOR
OCT 26 '79
REFER TO
FOR
Info | Inves | R/D | D/A | Staff | Adj | File

R Keith Wright
PO Box 136
Black Butte Ranch, Ore 97759
595 6267

JAMES A. REDDEN
ATTORNEY GENERAL

DEPARTMENT OF JUSTICE
100 State Office Building
Salem, Oregon 97310
Telephone: (503) 378-4400

September 21, 1979

Superior Asphalt and Concrete
2000 E. Beech Street
Yakima, WA 98909

Re: Oregon State Highway Contract No. 8953
Claimant: Keith Wright
Date of Incident: September 14, 1979
Location: Highway 97 near Shaniko, OR

Gentlemen:

Please find attached a letter dated September 15, 1979, from Keith Wright complaining about damage to his automobile. I have checked this matter through the District 9 Highway Office, who indicate that your firm was oiling and graveling Highway 97 in that area at that time. Therefore, under the terms of the above-captioned contract, we are tendering this matter to you. I trust that you will turn this matter over to your insurance carrier or contact Mr. Wright directly.

Sincerely,

Ronald G. Kelm

Ronald G. Kelm
Liability Claims Adjuster
Liability Claims Division

ph

enclosure

cc: Keith Wright
P.O. Box 136
Black Butte Ranch, OR 97759

September 15, 1979

State Superintendent of Highways
Salem, Oregon

Dear Sir:

My wife and I were travelling on Highway 97 southbound yesterday at about 4:00 PM when we encountered fresh tar and loose gravel in the Shaniko (approx.) area.

Your crew did a criminal thing in leaving the highway in such a dangerous condition. Our car was showered by rocks froma cars and trucks travelling north.

Our car has a broken windshield, a broken head light, numerous paint chips, and is covered with tar.

I strongly feel that the State of Oregon should replace my broken glass and reinburse me for the paint damage due to extreme negligence on the part of the crew that left the highway in such a bad condition.

I would appreciate your earliest reply as I must have the above replaced and repaired quickly.

I am a very unhappy taxpayer to think that my tax dollars could be used so dangerously.

Sincerely,

Keith Wright

Keith Wright
P. O. Box 136
Black Butte Ranch, Oregon 97759

NARRATIVE REPORT

Sherman Highway
Wasco County
Contract 8953

Shaniko-The Dalles California Highway
Prefix No. 33-1121

Purpose of project was to resurface 12 miles of the Sherman Highway from Shaniko to the Junction of Highway 197. This area had received extensive frost boil and breakup during the past winter due to moisture penetrating the old A.C. surface and numerous alligatored areas.

Superior Asphalt and Concrete Company was the successful bidder and a Pre-construction conference was held at 2 p.m., Monday, June 29, 1979, at the District Office Conference Room in The Dalles.

The contractor elected to use the State owned material source at mile point 61.8 on the Sherman Highway, and the Sub-contractor, Tuss Crushing, began setting up the crusher on August 17, 1979. The crushing plant went into production, producing 1 1/4-3/4 and 3/4-0 on August 27th, and did not finish project material until October 18th.

Superior Asphalt moved onto project September 4, 1979, and erected Temporary Protection and Direction Signing.

Begin Prime Coat Setptember 5th on South end of Project using .35 gallons per square yard of MC 250 and 3/4"-0 cover aggregate as called for by the Contract Special Provisions. It soon became apparent that the .35 of MC 250 was too much asphalt over a hard surface and this was reduced to .30 and remained at that rate throughout application of first prime.

The next problem encountered with the Prime was the 3/4"-0 materail on a hard surface under traffic. Several vehicles were observed on project with flat tires and reports were received in P.M. of trucks with 4 or more flats. At about 9:00 AM September 6th, the contractor was advised that the 3/4"-0 material was not suitable and to use 1/2"-1/4" and 1/4"-10 aggregate from State stockpile at Mile Point 66.3. This aggregate worked very well for cover rock and no more flat tires were observed on the project while using this material.

On the areas where the second application of Prime was placed, the application rate was reduced to .25 gallon per square yard with good results, however, this was near the maximum amount of MC 250 that could be tolerated on this application.

The overall cover and dry key aggregate used on the Prime was double the amount shown in the Contract Special Provisions.

Due to equipment breakdown and not enough people left on the project by the Contractor, quite a problem was experienced by the traveling public when the Prime Coat started to bleed due to warm weather during the curing period. Several claims for vehicle cleaning, broken windshilds, ect., have been received and sent to Superior Asphalt. After a two to three day period, the Prime Coat stabilized and did not present any more problems.

On September 24th, Superior Asphalt started on South end of project with

0-11 Macadam. The first two days, the contractor placed 1 1/4"-3/4" and 3/4"-1/2" only. When the weather was warm, there was no great problem with this procedure. The second day was not real warm and rock loss was noticeable on the third day. The contractor then placed all spreads except the seal coat until October 5, when we were informed by Region that all spreads, including the seal would be required each day. This eliminated vehicle damage from the larger float aggregate, but a noticeable loss of seal aggregate was apparent due to being applied late in the afternoon and uncontrolled traffic at night.

Asphalt application on the 0-11 Macadam was very near that required by the revised Table of Details for Asphalt Penetration Macadam.

Rock application was within 10% of that required by the revised Table of Details on all spreads except the 1 1/4"-3/4" which we under ran considerably. The Table of Details called for a rate of .025 Cu. Yd. per Square Yard and our average rate was .017. Part of this could be that the aggregate used may have been of a smaller average size than that used to obtain the results in the Standard Table. The main reason, however, was that the chip spreader placed a denser pattern in the center of the spread than it did on the outside and the rate of application had to be held down to keep the aggregate from stacking in the center. Both chip spreaders used on the project had this problem.

The contractor finished the 0-11 Macadam on October 11th, with fair to good results throughout the project. The finished surface is not as smooth as it could be if it had been finished at a warmer time of the year.

D. W. Sledge

D. W. Sledge
Assistant District Engineer

ef

1 Versteeg
Anderson
2 Christensen
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db Sullivan copy
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RECEIVED
DEC 17 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up ___/___/___
Action

STATEMENT OF OVERRUNS AND UNDERRUNS

Shaniko-The Dalles California Highway
Prefix No. 33-1121

Sherman Highway
Wasco County
Contract No. 8953

ORIGINAL AUTHORIZATION		FINAL COST	%
Contract Amount	$472,846.00	$471,628.96	-0.3%
Anticipated Items	34,800.00	*30,000.00	-13.8%
Contingencies	22,844.07	45,807.32	+100.5%
Engineering	45,688.14	** 14,924.23	-67.3%
Liquidated Damages		-2,900.00	
	$576,178.21	$559,460.51	-2.9%

Note: Contingencies was overrun on project due to the increase in aggregate and asphalt shown on the new Table of Details for Asphalt Penetration Macadam.

* Permanent Pavement Striping costs have not been received at this time.

** Total Engineering charges not available at this time due to incomplete Lab Reports.

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RECEIVED
DEC 17 1979
ROAD DESIGN SECTION

Do Not File
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ITEM NO.	ITEM	UNIT	CONTRACT QUANTITY	FINAL QUANTITY	PERCENT + OR -
1.	Furnishing Field Laboratory	Each	1	1	0.0%
2.	Temporary Protection and Direction of Traffic	Lump Sum	100%	100%	0.0%
3.	0-11 Asphalt Macadam	Sq. Yd.	225,300	225,244	0.0%
4.	Prime Coat	Sq. Yd.	386,700	384,410	-0.6%
5.	1"-0 Aggregate in Stockpile	Cu. Yd.	2,000		

This item deleted by Price Agreement #2 which placed 2,000 Cu. Yd. 3/4"-0 Aggregate in stockpile in lieu of 1"-0 material.

OVERRUNS AND UNDERRUNS
CONTRACT 8953

P. A. NO.	DESCRIPTION	UNIT	ORIGINAL QUANTITY	FINAL QUANTITY	PERCENT + OR -
1.	Increase Asphalt & Aggregate in 0-11 Macadam.	Sq. Yd.	225,300	225,244	0.0%
	Extra for temporary Protection and Direction of Traffic	Lump Sum	100%	100%	0.0%
2.	3/4"-0 Aggregate in Stockpile in lieu of 1"-0 Aggregate This Price Agreement replaces bid item No. 5.	Cu. Yd.	2,000	1,938	-3.1%
3.	Delete "Revision Letter No. 1. Documentary". This Price Agreement deleted penetration of 100-150 for AR grade asphalt on project.				

OVERRUNS AND UNDERRUNS
CONTRACT 8953

S.F.O. NO.	DESCRIPTIONS	UNIT	ORIGINAL QUANTITY	FINAL QUANTITY	PERCENT + OR -
1.	Permanent Pavement Striping	$	3,600		
	Actual costs not available at this time.				
2.	Restoration of old Roadbed	$	30,000	30,000	0.0%
	Engineering	$	45,688.14	14,924.23	-67.3

Engineering on this project was assigned to District Engineer's office utilizing maintenance personnel for inspection. This in conjunction with the Sq. Yd. unit of measure on the Prime Coat and 0-11 Asphalt Macadam greatly reduced engineering costs.

8953

FORM 81-734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Shaniko-The Dalles California Highway		WEEK ENDING: November 30, 1979
		SECTION PREFIX: 33-1121-900
HIGHWAY: Sherman		COUNTY: Wasco
NAME OF JOB: Shaniko-The Dalles Calif. Hwy.	KIND OF WORK: Oiling	
CONTRACTOR: Superior Asphalt & Concrete Co.	CONTRACT NUMBER: 8953	FEDERAL AID PROJECT NUMBER: NA
DATE OF CONTRACT: May 31, 1979	DATE WORK STARTED: July 19, 1979	ESTIMATED COMPLETION DATE: October 18, 1979
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 100	CALENDAR DAYS USED 129
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED
PROJECT AUTHORIZATION: $576,178.19		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100%
EXCLUSIVE OF ENGINEERING: $553,334.19	ENGINEERING AUTHORIZATION $ 45,688.14	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $558,033.26	ENGINEERING COST TO DATE $ 13,496.98	DATE PROJECT WAS COMPLETED: October 18, 1979
ESTIMATED PERCENT: OVERRUN / UNDERRUN 3 %	PERCENT OF AUTHORIZATION 30 %	

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT				12.0	
MILES PARTIALLY COMPLETED					
MILES COMPLETED				12.0	
TOTAL ESTIMATED QUANTITIES (CONTRACT)				612,000 Sq. Yd.	
TOTAL QUANTITIES CORRECTED TO DATE				612,000 Sq. Yd.	
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE				612,000 Sq. Yd.	
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME				Project Completed	
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Rainy	0		
MONDAY	Rain	0		
TUESDAY	Sunny-Cold	0		
WEDNESDAY	Cloudy	0		
THURSDAY	Fog-Overcast	0		
FRIDAY	Fog-Overcast	0		
SATURDAY	Cloudy	0		

RECEIVED
DEC 3 1979
CONSTRUCTION BRANCH

Keesey, Jackmond, Hopkins, Williams, Johnson, Olson, Richards, Berg, Inloes, Widmer, Osbeuer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	PROJECT COMPLETED.
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

Semi-final will be submitted November 30, 1979.

RECEIVED
DEC 3 1979
CONSTRUCTION
BRANCH

SIGNED _____ LOCATION The Dalles
District Engineer

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-F216

VICTOR ATIYEH
GOVERNOR

Department of Transportation

STATE HIGHWAY DIVISION

3313 N. E. Frontage Road
The Dalles, Oregon 97058

In Reply Refer to
File No.:

Shaniko Oiling Project
Contract #8953
Sherman Highway
Wasco County

October 3, 1979

Mr. Clark B. Stahl
150 Corona Street
San Francisco, California 94127

Dear Mr. Stahl:

Thank you for your letter explaining the difficulties that you encountered on your recent trip through Oregon.

I should point out that the road condition on that date (September 14) was certainly not a planned operation. On that date, which was three days after the contractor had finished that phase of the oiling, the asphalt began to bleed. Due to an equipment breakdown, the contractor was delayed in placing additional rock to correct this condition.

I can assure you that there was no premeditated negligence on the part of the contractor or the State of Oregon.

Any claim that you have should be directed to the contractor noted herein, whom, by law, must carry liability insurance:

Superior Asphalt & Concrete Company
2000 East Beech Street
Yakima, Washington 98909

I would also like to point out that the project is and was posted on that date in accordance with the contract as awarded--there are ample signs for both the North and South traffic , including beginning and ending construction signs.

If this office can be of further assistance to you in this or other matters, please feel free to contact us.

Sincerely,

Richard S. Hawkins
District Engineer

RSH:ef

cc: Dale Allen
Scott Coulter
Liability Claims Section
Superior Asphalt & Concrete Company

RECEIVED
STATE HWY ENGR
OCT 4 79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Form 734-3122

150 Corona Street
San Francisco, California
94127

ACE DOM SEC
RECEIVED September 25, 1979

District Engineer
State of Oregon
County of Wasco
The Dalles, Oregon, 97058

DISTRICT OFFICE
Assigned

RECEIVED
SEP 28 1979
WASCO COUNTY COURT

Dear Sir:

While traveling south bound on Highway 97 on Friday September 14, near the town of Shaniko, I drove through more than 10 miles of road oiling being done by your State crew.

When I finally got through driving (less than the posted 35 mile speed) my car was splattered with road oil and my windshield was broken by gravel thrown up from other on-coming cars. After having my car cleaned professionally I discovered many paint chips from the gravel, which necessitates a complete paint job.

Your road crew was negligent for the following reasons:

1. the entire roadbed was being oiled at one time.
2. no traffic control was provided.
3. the only signs posted were "men working" and "35 mile speed".
4. a sign indicating road oiling ahead was <u>not</u> posted.
5. in talking to your road foreman a detour was available from Shaniko thru Antelope and back into Highway 97, but was not posted in the beginning of the construction zone.
6. the length of the road oiling work (over 10 miles) was <u>not</u> posted.
7. the road foreman seemed inexperienced because he did not anticipate any problem other than "slowing down the traffic".

I am enclosing a bill for the repair work to my car in the amount of $975.02 and photos taken <u>after</u> having the car cleaned, showing rock damage to the paint. I am not including any additional amount for aggrevation and mental anguish, which certainly did not help my blood pressure. This was a new car that I had just purchased in Seattle with a beautiful body finish and a new wax job. To see it ruined by your crew's negligence was unjustifiable in any manner.

I am expecting your immediate attention to this claim and anticipate receiving a check in the near future.

"Clark B. Stahl"
Clark B. Stahl

CBS:og

cc: Mr. Scott Coulter, Highway Engineer, State of Oregon, Highway Division
Dept. of Transportation, Transportation Bldg.
Salem, Oregon, 97401

Enclosures

REPAIR ORDER

ESTIMATES FOR LABOR ONLY — MATERIAL ADDITIONAL

OFFICE COPY

Rod/Sprm 4N479

*CODE N = NEW U = USED R = REBUILT

7610

QUAN.	*	PART NO. OR DESCRIPTION	SALES AMO	COST
1		RH wormshield	23	20
1		Moulding kit	1	55
		for		
1		Lt Swivel		

*CODE N = NEW U = USED R = REBUILT

ESTIMATES FOR LABOR ONLY — MATERIAL ADDITIONAL

REPAIR ORDER

7614

QUAN.	•	PART NO. OR DESCRIPTION	SALE AMO	COST

Name Mr. Clark Stahl

Address 150 Corona St San Francisco Calif

Phone No. Date 9-20-79

Speedometer Reading WRITTEN BY S. O. Mejor

MAKE AND MODEL	LICENSE NO. AND STATE	MOTOR NO.
71 Buick Regal	5W1229	

INSTRUCTIONS	AMOUNT

LUBRICATE ☐ CHANGE OIL ☐ FLUSH TRANS. ☐ FLUSH DIFF. ☐ WASH ☐ POLISH ☐

Repaint Sweetie, refinish

car complete

Material and Labor

included

		TOTAL PARTS	
	Gals. Gas	@	
	Qts. Oil	@	
	Lbs. Grease	@	
	Total Gas-Oil-Grease		

RETAIN PARTS FOR INSPECTION ☐ DISCARD PARTS ☐

ESTIMATE AMOUNT PARTS AND LABOR

ESTIMATE TOTAL ▶ 600.00

Total Labor	400.00
Total Parts	
Gas, Oil, Grease	
Accessories	
Tires, Tubes	
Outside Work	
TOTAL	
TAX	52.00
TOTAL AMOUNT	600.00

I hereby authorize the above repair work to be done along with the necessary material, and hereby grant you and/or your employees permission to operate the car, truck or vehicle herein described on streets, highways or elsewhere for the purpose of testing and/or inspection. An express mechanic's lien is hereby acknowledged on above car, truck or vehicle to secure the amount of repairs thereto.

Work Authorized By X Date Promised

Delivered to Date Delivered

OFFICE COPY

Redi-Form 4N479

VICTOR ATIYEH
GOVERNOR

Department of Transportation

STATE HIGHWAY DIVISION

3313 N. E. Frontage Road
The Dalles, Oregon 97058

In Reply Refer to
File No.:

Shaniko Oiling Project
Contract #8953
Sherman Highway
Wasco County

October 3, 1979

Mr. Harrison W. Kramer
2621 86 NE
Bellevue, Washington 98004

Dear Mr. Kramer:

Thank you for your letter calling to our attention the unfortunate situation that you encountered recently while traveling in our state.

We are very sorry that you were caught up in our oiling project at one of the times when the conditions were less than desireable.

In recent years, we have been forced by economics to return to some of the methods of resurfacing our roads that were used a number of years ago when traffic volume was not so much of a problem. During the beginning of this project, some difficulties did occur. I can assure you that adjustments have been made to bring this and other planned oiling projects to an operational level that will preclude the situation that you encountered.

It should be noted that our contractor, by law, must carry liability insurance. Your claim should be directed to him:

Superior Asphalt and Concrete Company
2000 East Beech Street
Yakima, Washington 98909

Thank you, again, for taking the time to write us regarding this matter. We will plan on having your future trips through Oregon less trying.

If this office can be of further assistance to you in this or other matters, please feel free to contact us.

Sincerely,

Richard S. Hawkins

RSH:ef

cc: Dale Allen
Scott Coulter
Jack Sollis
Liability Claims Section
Superior Asphalt & Concrete Company

RECEIVED
STATE HWY ENGR
OCT 479
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Form 734-3122

4453

VICTOR ATIYEH
GOVERNOR

Department of Transportation
STATE HIGHWAY DIVISION

In Reply Refer to
File No.:

3313 N. E. Frontage Road
The Dalles, Oregon 97058

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REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File ✓

noted
H.S. COULTER

October 2, 1979

Ms. Claribel S. Forrest
215 North 56th Avenue #24
Yakima, Washington 98908

Dear Ms. Forrest:

Thank you for your letter of September 17, 1979, calling our attention to a less than desireable situation on the oiling project south of Shaniko.

When this project was started, we expected some minor problems, but nothing like the situation that you encountered. This was primarily due to some equipment breakdown and because of that, the rock necessary to cover the bleeding spots was a little slow in being applied.

We have gone back to oiling projects on many of our highways as a means to stretch the tax dollar as far as we can, and this seems satisfactory in producing a good, long-lasting wearing surface in the central to eastern part of Oregon. There were a few problems on this particular project, but steps have been taken to assure that they do not occur in the future.

Thanks again, for calling this to our attention, we are sorry that you were involved in this matter.

Our contractor, by law, must carry liability insurance to cover such matters as these. Any claim that you have should be submitted to:

Superior Asphalt & Concrete Company
2000 Beech Street
Yakima, Washington 98901

If this office can be of further assistance to you in this or other matters, please feel free to contact us.

Sincerely,

Richard S. Hawkins
District Engineer

RSH:ef

cc: Dale Allen
Superior Asphalt & Concrete Company

#5C

RCE PLA FAE
RTE RECEIVED GEO
RUE OCT 1979 RDE
RSO REGION 4 RBE
ASSIGNED

Form 734-3122

VICTOR ATIYEH
GOVERNOR

Department of Transportation

STATE HIGHWAY DIVISION

3313 N. E. Frontage Road
The Dalles, Oregon 97058

In Reply Refer to
File No.:

October 1, 1979

Shaniko Oiling Project
Contract 8953
Sherman Highway
Wasco County

Mrs. Helen Naurchik
S.W. 225 Elm
Pullman, Washington 99163

Dear Mrs. Naurchik:

In response to your letter of September 24, 1979, in which you noted the trouble you had on a recent trip through Oregon. First, let me assure you that the conditions you encountered were not designed to be as you found them. Once in a while, the best laid plans of man goes the opposite of what he intended to obtain.

We are very sorry that you were caught in this situation. This is not a normal occurrence on our construction projects in Oregon and steps have been taken to assure that it does not happen again.

Our contractor, by law, must carry liability insurance to cover problems that may occur. Any claim that you have should be submitted to:

Superior Asphalt & Concrete Company
2000 Beech Street
Yakima, Washington 98901

Again, we are sorry for the inconvenience in traveling through our state.

If this office can be of further assist nce to you in this or other matters, please feel free to contact us.

Sincerely,

Richard S. Hawkins
District Engineer

RSH:ef

cc: Dale Allen, Regional Engineer
Scott Coulter, State Highway Engineer
Superior Asphalt and Concrete Company

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STATE HWY ENGR
OCT 4'79
REFER TO
FOR
Info | Invest | R/D | D/R | Sec | Act | File

Form 734-8122

2621 - 86 NE
Bellevue, WA 98004
September 26, 1979

ADE DSM SES
RECEIVED
DISTRICT OFFICE
Assigned

Director of Highways
Oregon Highway Department
Salem OR 97308

Re: Re-surfacing Highway 97

Dear Sir:

I have admired your highway department for many reasons and for many years. On a recent trip through central Oregon, however, I encountered an unfortunate situation I believe should be called to your attention.

On September 12 about 4:30 p.m. on Highway 97 between Shaniko and Madras we came upon 12 miles of fresh black oil on a road re-surfacing job. There were no warning signs. The posted speed was 35 mph but there was no enforcement. As a result my new motor home is badly scarred. Both large front windows and one headlight are broken. Black tar is splattered over all equipment.

It seems to me as though some of the following precautions should have been taken:

1. No traffic should have been allowed to travel over the freshly oiled surface.
2. The surface should have had a visible dust coat.
3. One way traffic with a pilot car should have been utilized.
4. There should have been speed control for trucks going 50 to 60 mph, spraying rocks and gravel over on-coming cars.

In Madras car and trailer owners were complaining about the situation. My guess is that thousands of dollars of damages were sustained. I alone have about $300 in damage from glass breakage plus the paint damage from rocks spun by passing vehicles.

I hope that in the future your department will insist that contractors use all possible means to protect traveling vehicles until the surface is well and truly set.

Thank you for your attention.

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OCT 1 - '79
REFER TO
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Very truly yours,

Harrison W. Kramer

42 53-06

BU 10-3

September 17, 1979
Yakima, Washington

RCE

RECEIVED
SEP 25 1979
REGION 4

ASSIGNED_____

State of Oregon
Highway Commissioner or
Highway Engineer
Salem, Oregon 97310

Dear Sir:

Coming North on Highway 97, just South of Shaniko, Oregon, I plowed through a sea of tar and rocks for at least a mile and one-half. The traffic was heavy and I was pelleted with rocks. My beautiful automobile was covered with tar--it took a gallon of paint thinner and many hours of hard work to remove the "guck". The flying rocks chipped the paint on my automobile. Your Highway Division has caused thousands of dollars of damage to the automobiles, including mine, which were required to travel through that mess and, frankly, the Oregon Highway Division should be hauled into a Court of Law.

In all of my many years of traveling the highways, never have I run into anything quite so disgusting.

Claribel S. Forrest

Claribel S. Forrest
215 North 56th Ave. #24
Yakima, Washington 98908

RECEIVED
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SEP 21'79
REFER TO
Allen
FOR
Info | Issues | R/D | D/R | Sect | Act | File

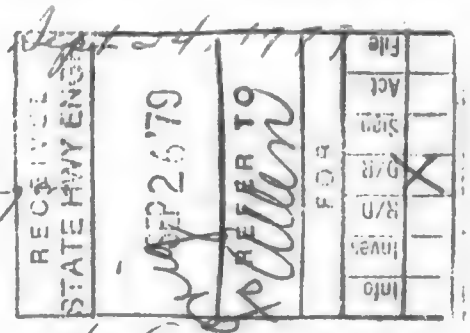
ey HSC

RECEIVED
SEP 21 1979
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

report RSH
9-26 mr

SW 225 Elm St
Pullman, Wa 99163

Sept 24, 1979



Director of Highways
Highway Department State of Oregon
Salem, Oregon.
Dear Sir:

On a very recent trip through Oregon we had the misfortune to use Highway #97 the twelve miles from Shanko Junction were without doubt the most disgraceful example of repair or lack of it we have ever seen in over 20 years of Oregon travel. The road which was posted for 35 miles an hour did not seem to impede the traffic all of which travelled between 55 and 60.

The net result was a complete disaster for our car which is badly pitted from stones and tar. And our clothing since we couldnt open a door or get out luggage without touching any part of it -

I presume you feel no sense of liability for this disaster but I trust the contractor who did the work will never again be hired by your department -

Thank you for your attention.

Helen Naumchuk
SW 225 Elm Pullman Wa 99163

.1979 M.P. 36.0 to M.P. 8954
.40.5 Sec. Medical Springs
.Hwy. (Paving)

895

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

STATE HIGHWAY ENGINEER

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Maxwell's Electric, Inc., No. 8720	Main St. & Canyon Blvd. (John Day), Grant County	June 22, 1979
Houck-McCall Corp., No. 8829	Central Oregon Rock Production, Harney County	July 9, 1979
Roy E. Ladd, Inc., No. 8537	SE Stark/Wn. Intchge. (Stark St. U'Xing), Multnomah County	July 9, 1979
Hansen Electric, Inc., No. 8658	Goshen/Divide Hwy. @ 6th Street (Cottage Grove), Lane County	July 11, 1979
Benge Paving, Inc., No. 8766	Harlow/Hayden Bridge Rd.-"Q" St. (Springfield), Lane County	July 17, 1979
Bryan C. Rambo Crushing Co., No. 8834	Jordan Valley Rock Prod., Malheur County	July 17, 1979
Columbia West Matls. & Constructors, No. 8839	W.C.L.-Calvin Street (Columbia City), Columbia County	July 17, 1979
W. R. Grasle Co., No. 8751	S.W. Allen Blvd. @ S.W. Lombard Ave. (Beaverton), Washington County	July 17, 1979
Olson Electric Co., Inc., No. 8791	Pacific Hwy. (Conn. #1) @ Hayden Island Drive, Multnomah County	July 17, 1979
Hamilton Electric, Inc., No. 8682	Beaverton/Tigard Hwy. @ SW Greenburg Rd., Washington County	July 20, 1979

Contractor and Contract No.	Section and County	Acceptance Date
D Mc D Corporation, No. 8903	Elgin Rock Production Project, Union County	July 26, 1979
We Painters, Inc., No. 8669	Youngs Bay Bridge, Clatsop County	August 1, 1979
Douglas S. Coats Const., No. 8803	Snabel, Bologna & Bone Creek Bridges, Grant and Wheeler Counties	August 1, 1979
R. L. Coats, No. 8954	M.P. 36.0-M.P. 40.5 Project, Baker County	August 7, 1979
Husky Fence Co., No. 8749	Echo-Rieth Project, Umatilla County	August 7, 1979
Electric Corp., No. 8881	Lancaster Dr. @ Hayesville Dr. N.E., Marion County	August 7, 1979
Selby Bridge Co., No. 8575	SE Division St. U'xing (BLE/SP Line), Multnomah County	August 7, 1979

August 9, 1979

H. S. Coulter, State Highway Engineer

8954

August 8, 1979

Safeco Insurance Company of America
1500 S.W. First Avenue
Portland, OR 97201

Gentlemen:

Contract No. 8954A awarded to R. L. Coats for paving on M.P. 36.0 to M.P. 40.5 Section of the Medical Springs Highway in Baker County was completed on July 3, 1979 and accepted by the State Highway Engineer on August 7, 1979.

Final payment in the amount of $3,951.19 will be released to the contractor after August 13, 1979. The total contract amount is $119,023.86 and no work was performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

C. W. Read
COMMISSION SERVICES

cc: R. L. Coats
63285 Skyline Ranch Rd.
Bend, OR 97701

bc: C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Heeck
Wendell Schwartz

FKN/mdd

8954 D C 340

7-23-79

CONSTRUCTION NARRATIVE REPORT

M.P. 36.0 to M.P. 40.5
[redacted]
R. L. Coats Construction

Prefix: 101-4219
Contract: 8954
Baker County

The contract was awarded May 31, 1979 with the specified completion date of August 15, 1979.

Work began June 30, 1979 and was completed July 3. All work went well with the mix all ready established on the Baldock Slough-South Baker Contract # 8753.

All mix was substantially in specs with only two failing tests. Aspahlt content was good - based on asphalt inventory.

Project was paved eleven feet wide instead of the ten foot lanes shown on the plans. Existing pavement was all ready eleven feet wide due to maintenance patching etc.

The contract bid item for Class "B" Asphalt Conc. mix was overrun approximately 10% and the project extended 0.3 miles.

Compaction requirements should have been deleted or modified to so many passes of the roller. This was not done by the contract special provisions so we used the nuclear test data from Contract 8753 and the compaction was determined to be more than satisfactory - averaging 95% by nuclear tests.

Joseph A. Schlieski
Resident Engineer

Vorsteeg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
JUL 23 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring by ___/___/___
Action

STATEMENT OF OVERRUNS AND UNDERRUNS

Project: M.P. 36.0 to M.P. 40.5
Highway: Medical Springs
County: Baker

Contract: 8954
Prefix: 101-4219
F. A. No.: State

Item No.	Item	Unit	Original	Semi-final	Percent +/-
			SUMMARY		
	Bid Items		$108,640.00	$119,023.86	+10
	Anticipated Items		$ 1,100.00	$ 670.00	-39
	Contingencies		$ 0.00	$ 0.00	
	Engineering		$ 5,000.00	$ 1,500.00	-70
	Total		$114,740.00	$121,193.86	+6

All substantial changes were evaluated and only those listed below meaningfully affected the total project cost.

INDIVIDUAL OVERRUNS AND UNDERRUNS

2	Class "B" or "C" Asphalt Conc.	Ton	5,580	6,414	+10

Due to deteriorating pavement conditions the project was extended as much as possible - attempting to stay within 5% overrun of project authorization.

Engineering costs are down because this work was completed inconjunction with the larger Contract 8753 - utilizing the same personnel, etc.

8954

Report # 1 FINAL

FORM 81-734-3001
OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: M.P. 36 to 40.5		WEEK ENDING: July 6, 1979
		SECTION PREFIX: 101-4219
HIGHWAY: Medical Spring		COUNTY: Baker
NAME OF JOB: M.P. 36.0 to M.P. 40.5	KIND OF WORK: Paving	
CONTRACTOR: R. L. Coats	CONTRACT NUMBER: 8954	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: May 31, 1979	DATE WORK STARTED: June 29, 1979	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 26 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $ 114,740.00	SPECIFIED COMPLETION DATE: August, 15, 1979	PERCENT OF TIME ELAPSED: 45
EXCLUSIVE OF ENGINEERING: $ 109,740.00	ENGINEERING AUTHORIZATION $ 5,000.00	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 119,693.86	ENGINEERING COST TO DATE $ 880.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED PERCENT OVERRUN/UNDERRUN: 4.3 %	This Week $880.00 PERCENT OF AUTHORIZATION: 18 %	DATE PROJECT WAS COMPLETED: July 3, 1979

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
				110			

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					4.5
MILES PARTIALLY COMPLETED					4.5
MILES COMPLETED					5,850
TOTAL ESTIMATED QUANTITIES (CONTRACT)					6,414.34
TOTAL QUANTITIES CORRECTED TO DATE					6,414.34
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					-
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					-
NUMBER OF SHIFTS PER DAY					1
HOURS PER SHIFT					10

EQUIPMENT USED DURING THE WEEK:

AC plant, rollers, trucks, paving machine, etc.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 1	Ptly cldy			
MONDAY 2	Ptly cldy, warm			
TUESDAY 3	Ptly cldy, hot			Completion date
WEDNESDAY 4				
THURSDAY 5				
FRIDAY 6				
SATURDAY 30				

RECEIVED
JUL 9 1979
CONSTRUCTION BRANCH

Kosey, Raymond, Hopkins, Williams, Johnson, Olson, Richards, Berg, Wilson, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY 1	No activity
MONDAY 2	Laying Class "B" AC MP 37.22 to MP 38.56 Rt. lane and MP 38.56 to 40.83 Lt. lane.
TUESDAY 3	Laying class "B" AC MP 38.54 to MP 40.83 Rt. lane. Project completed.
WEDNESDAY 4	
THURSDAY 5	
FRIDAY 6	
SATURDAY 30	

REMARKS

Project completed.

Semi-final submitted to Region 7-9-79.

SIGNED Joseph A. Schlieksi LOCATION La Grande

Joseph A. Schlieksi

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES.

SP-7216

8954

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

May 2, 1979

FROM: John W. Sheldrake
Maintenance Operations Engineer

TO: R. L. Schroeder
Maintenance Engineer

SUBJECT: Purchase Requisitions 15756 & 15757 - Machine Patching Ukiah-Hilgard Highway and Medical Springs Highway

The two subject purchase requisitions were sent in by Region 5 for maintenance-type machine patching/overlay. Funds are available in this fiscal year and both jobs are heavy maintenance sections and both within the reach of commercial plants.

The project on the Ukiah-Hilgard Highway is on a distorted section with some soft spots, and heavy patching would be required if the machine overlay was not accomplished.

The project on the Medical Springs Highway between M.P. 36.0 and M.P. 40.5 covers part of a section intended to be transferred to Baker County along with other sections of highway relating to the assumption of the Whitney-Tipton Forest Service Highway by the Highway Division. Region advises that the northerly two miles of this 4.07 mile section (M.P. 38.47 - the Chandler Interchange to M.P. 42.54, the Campbell Street Interchange) is in pretty poor shape and would possibly have to be fixed up somewhat before the County accepted it anyway. This job extends northerly another two miles, picking up another section that is in fairly poor shape and would require heavy blade patching if the machine patching was not accomplished.

The intentions were that both of these jobs would be completed before the end of the fiscal year utilizing available maintenance funds.

In talking with Don Harwell by the way, there seems to be some questions remaining concerning Baker County's acceptance of the trade-off mileage prior to actual assumption of the Whitney-Tipton Forest Highway by the State.

Region advises that these two jobs were not sent in earlier for possible Transportation Commission contracting as they were not considered of sufficient size to warrant a formal Commission contract, but rather were the type of job more appropriate to go through the Department of General Services routing.

Att.
cl

5-3-79
Hershey
Should go quickly as possible. - Can we have a 2 wk add.
R. L. SCHROEDER EIK
cc Coulter
Schroeder

RECEIVED TECHNICAL SERVICES MAY 3'79 REFER TO FOR P&M Act Sign B/C R/W Maint Insp

MAINTENANCE ENGINEER RECEIVED FOR MAY 2 1979 ME MOE MSM MOC AG MMS

OREGON STATE HIGHWAY DIVISION

Purchase Requisition

FOR FIELD OFFICES, FIELD CREWS, AND SHOPS

№ 15757

REQUISITION OFFICE—

La Grande, *Oregon*

April 18, 1979

Please order the following items to be delivered as stated hereon:

to OREGON STATE HIGHWAY DIVISION

Care of C. K. Ansell, District Engineer

Street Route 3, Box 4032

City La Grande *Zip Code* 97850

Signed C. K. Ansell

Approved [illegible]

Regional Engineer or Unit Head

Approved

Section Head

All requisitions for construction materials of any kind must show the purpose for which the materials are to be used, and the order to which they are to be charged.

Quantity Ordered	Unit	DESCRIPTION	Cost Distribution
ss "B" AC 50	tons	Machine overlay with asphaltic concrete tacked with RS-1.	101-4463-10
imated		Material to be placed between [redacted] and [redacted] on Medical Springs Highway (OR 203)	
		Baker ~~Union~~ County	
		Standard Specifications "State of Oregon, for Highway Construction," dated 1974, to apply, in particular Section 401, 403 and 407, Asphalt Concrete Pavement, with the following exceptions. Payment will be for 2" lift of Class "B" Asphaltic Concrete Mixture in place with no additional payment for asphaltic cement in the mixture. Machine overlay and tacking to be at 20-foot widths.	
		Contractor will furnish signs and flagmen as per the Standard Specifications "State of Oregon for Highway Construction", dated 1974 and Oregon Manual on Uniform Traffic Control Devices dated 1971. There will be no additional payment for signs and flagmen, it being understood that payment for this is included in the price bid per ton for the Asphaltic Concrete Mixture.	
		(cont. on attached sheet)	

pproved for purchase request ..... *Purchase request forwarded* .....

rchase Request Number *Office Number*

ORIGINAL—Copy for Requisition Office

10326-794

Purchase Requisition No. 15757

Payment: The pay quantity will be the contract unit price per ton for the item Class "B" Asphaltic Concrete. The pay quantity will be the contract unit price per ton for the item RS-1 asphalt in tack coat. All work must be completed and payment requested therefore, by itemized invoice, no later than June ~~30~~ 25, 1979.

The State of Oregon may elect to increase or decrease the quantity or quantities indicated by any amount up to fifty percent (50%) at its option.

The estimated cost of the project is $105,000.

Possible Bidders:

1. Rogers Asphalt Paving Company
   P. O. Box 200
   La Grande, OR 97850

2. Baker Redi-Mix, Inc.
   P. O. Box 825
   Baker, OR 97814

3. R. L. Coates
   63285 Skyline Ranch Road
   Bend, OR 97701

.1979 M.P. 40.2 to M.P. 8955
.44.0 Sec. Ukiah-Hilgard
.Hwy. (Paving)

#6965

File

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

STATE HIGHWAY ENGINEER

10-10-79

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Interstate Coatings, Inc., No. 8668	Lewis & Clark River Bridge, Clatsop County	September 10, 1979
Houck-McCall Corp., No. 8830	Crane Rock Production Project, Harney County	September 10, 1979
Coast Marine Const., Inc., No. 8853	Catching Slough (Eastside) Bridge, Coos County	September 10, 1979
David A. Mowat Co., No. 8608	Columbia Blvd. Intchge. (Col. Blvd. U'Xing), Multnomah County	September 10, 1979
Hansen Elect. Co., No. 8700	Cape Arago Hwy. @ Harrison Ave. (N. Bend), Coos County	September 17, 1979
R. L. Coats, No. 8894	Halfway Paving Project, Baker County	September 19, 1979
Roseburg Paving, Inc., No. 8813	Cedar St.-Oak St. (Oakland), Douglas County	September 19, 1979
Baker Redi-Mix, Inc., No. 8955	M.P. 40.2 - M.P. 44.0 Paving Project, Union County	September 26, 1979
Continental Crushing & Leasing, Inc., No. 8888	Paisley Rock Production Project, Lake County	September 27, 1979
Hamilton Electric, Inc., No. 8730	Pendleton/John Day Hwy. @ SW Hailey St. (Pendleton), Umatilla County	September 28, 1979
Traffic Marking Specialists, Inc., No. 8944	Grants Pass Pavement Marking, Josephine County	October 1, 1979
Linnco Elect. Co., No. 8769	1st Ave.-6th Ave. (Albany), Linn County	October 3, 1979

Contractor and Contract No.	Section and County	Acceptance Date
R. L. Coats, No. 8640	Hines-Diamond Ave. (Burns) Project, Harney County	October 3, 1979
Dennis V. Snyder, No. 8838	Clackamas RR O'xing-SE 110th Ave., Clackamas Co.	October 5, 1979
R. A. Hatch Co., No. 8855	Beltline Rd. & Delta Hwy., Lane County	October 11, 197
Copeland Paving, Inc. No. 8915	Rogue River Grading & Paving Project, Jackson County	October 11, 197
M. C. Lininger & Sons, Inc., No. 8916	Rogue Valley Hwy. @ Charlotte Ann Road, Jackson County	October 11, 197

October 10, 1979

H. S. Coulter, State Highway Engineer

8955

COM 5
8955

September 28, 1979

Seaboard Surety Company
Seattle First National Bank Bldg.
1001 4th Avenue
Seattle, WA 98154

Gentlemen:

Contract No. 8955 awarded to Baker Redi-Mix, Inc., for paving on the M.P. 40.2 to M.P. 44.0 Section of the Ukiah-Hilgard Highway in Union County was completed on July 11, 1979, and accepted by the State Highway Engineer on September 26, 1979.

Final payment in the amount of $6,598.61 will be released to the contractor after October 3, 1979. The total contract amount is $147,034.32 and no work was performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

C. W. Read
COMMISSION SERVICES

klp

cc: Baker Redi-Mix, Inc.
East "E"
Baker, OR 97814

bc: C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Hasek
W. E. Schwartz

8955 — 1 — 7-25-79 — 341 — N

CONSTRUCTION NARRATIVE REPORT

M.P. 40.2 to M.P. 44.0
Ukiah-Hilgard Highway
Baker Redi-Mix, Inc.

Prefix: 131-4211
Contract: 8955
Union County

The contract was awarded May 31, 1979 with the specified completion date of August 15, 1979.

Work began June 28, 1979 and was completed July 11. A commercial mix, class "B" or "C" with a minimum of 6% asphalt was specified. Generally the mix was good. We had only 2 failing gradation tests and 3 failing asphalt content tests. Being a commercial plant the only control we have on the asphalt content is by the rotorex test. We used the vacuum extractor borrowed from the lab and may have had some problems getting consistent answers on asphalt content. If the daily average of the asphalt content was in the spec requirement - we accepted the material as suitable.

The project was paved 11 feet wide instead of the 10 foot lanes shown on the plans. The existing pavement was all ready 22' wide due to patching, etc.

The contract bid item for Class "C" Asphalt Conc. mix was overrun approximately 1.0% and the project extended 0.3 miles to better connect with previous work and existing structures.

Compaction requirements should have been deleted or modified to so many passes of the roller. The specs did not require a mix design and no bulk specific gravity was established. We did not attempt to use the nuclear test strip method - because it could not be correlated with lab results, etc. All compaction was visually observed and found suitable.

One potential problem exists with a project of this type - where the contractor does not complete the related shoulder work. The contractor is released from his obligations of protecting the traveling public - after he completes the paving work. There may be a period of time before maintenance forces can complete the shoulder work and the public is exposed to the vertical edge on the shoulder edge of the pavement - possibly with no signs etc. to warn them of the unsafe conditions. On this project maintenance was advised of the problem and has been working toward completing the work as soon as possible.

Joseph A. Schlieski
Joseph A. Schlieski
Resident Engineer

Verstoeg
Anderson
Christianson
Olson
Madsen
Terpin
Trout
Wekerling

RECEIVED
JUL 25 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up ___/___/___
Action

REFERRED TO
Board — Snyder-Meyer
Cole — Semple
Ertsen — Watson
Hager — Dorn — Lou
Return — Discuss — Do — File Copy — Due
BY-FIN . DESIGN ENGINEER

STATEMENT OF OVERRUNS AND UNDERRUNS

Project: M.P. 40.2 to M.P. 44.0
Highway: Ukiah - Hilgard
County : Union

Contract: 8955
Prefix : 131-4211
F. A. No: State

Item No.	Item	Unit	Orignal	Semi-final	% ±
		SUMMARY			
	Bid Item		$132,440.00	$147,827.06	+12
	Anticipated Item		1,000.00	628.00	-37
	Contingencies		0.00	0.00	0
	Engineering		5,000.00	2,000.00	-60
	Total		$138,440.00	$150,455.06	+9

All substantial changes were evaluated and only those listed below meaningfully affected the total project cost.

INDIVIDUAL OVERRUNS AND UNDERRUNS

2.	Class "B" or "C" Asphalt concrete	ton	4940	5532	+12

Due to deteriorating pavement conditions and a more logical beginning M.P. the project was extended - attempting to stay within the 5% overrun of the project authorization.

Engineering costs are down because we didnot request any lab tests and the need for a state weigh person in Baker was eliminated by price agreement.

8955 7-25-79 341

STATEMENT OF OVERRUNS AND UNDERRUNS

Project: M.P. 40.2 to M.P. 44.0
Highway: Ukiah - Hilgard
County : Union

Contract: 8955
Prefix : [illegible]
F. A. No: State

Item No.	Item	Unit	Orignal	Semi-final	% ±
		SUMMARY			
	Bid Item		$132,440.00	$147,827.06	+12
	Anticipated Item		1,000.00	628.00	-37
	Contingencies		0.00	0.00	0
	Engineering		5,000.00	2,000.00	-60
	Total		$138,440.00	$150,455.06	+9

All substantial changes were evaluated and only those listed below meaningfully affected the total project cost.

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2.	Class "B" or "C" Asphalt concrete	ton	4940	5532	+12

Due to deteriorating pavement conditions and a more logical beginning M.P. the project was extended - attempting to stay within the 5% overrun of the project authorization.

Engineering costs are down because we didnot request any lab tests and the need for a state weigh person in Baker was eliminated by price agreement.

Vertrees
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakerlig

RECEIVED
JUL 25 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up ___/___/___
Action

CONSTRUCTION NARRATIVE REPORT

M.P. 40.2 to M.P. 44.0
Ukiah-Hilgard Highway
Baker Redi-Mix, Inc.

Prefix: 131-4211
Contract: 8955
Union County

The contract was awarded May 31, 1979 with the specified completion date of August 15, 1979.

Work began June 28, 1979 and was completed July 11. A commercial mix, class "B" or "C" with a minimum of 6% asphalt was specified. Generally the mix was good. We had only 2 failing gradation tests and 3 failing asphalt content tests. Being a commercial plant the only control we have on the asphalt content is by the rotorex test. We used the vacuum extractor borrowed from the lab and may have had some problems getting consistent answers on asphalt content. If the daily average of the asphalt content was in the spec requirement - we accepted the material as suitable.

The project was paved 11 feet wide instead of the 10 foot lanes shown on the plans. The existing pavement was all ready 22' wide due to patching, etc.

The contract bid item for Class "C" Asphalt Conc. mix was overrun approximately 12% and the project extended 0.3 miles to better connect with previous work and existing structures.

Compaction requirement should have been deleted or modified to so many passes of the roller. The specs did not require a mix design and no bulk specific gravity was established. We did not attempt to use the nuclear test strip method - because it could not be correlated with lab results, etc. All compaction was visually observed and found suitable.

One potential problem exists with a project of this type - where the contractor does not complete the related shoulder work. The contractor is released from his obligations of protecting the traveling public - after he completes the paving work. There may be a period of time before maintenance forces can complete the shoulder work and the public is exposed to the vertical edge on the shoulder edge of the pavement - possibly with no signs etc. to warn them of the unsafe conditions. On this project maintenance was advised of the problem and has been working toward completing the work as soon as possible.

Joseph A. Schlieski
Resident Engineer

STATE OF OREGON

INTEROFFICE MEMO

Contract Payments (DEPT.) 378-6594 (TELEPHONE)

FILE: CON 5

TO: H. S. Coulter
State Highway Engineer

DATE: September 25, 1979

FROM: R D Church for
C. T. Keasey
Ass't. State Highway Engineer

SUBJECT: Highway Project Acceptance

Contract 8955, Work Completed July 11, 1979

Project M.P. 40.2 - M.P. 44.0

Highway Ukiah - Hilgard

County Union

Type of Work Paving

Contractor Baker Redi-Mix, Inc.

Recommended Acceptance Date September 26, 1979

The contractor has completed all work according to specifications and I recommend your acceptance of the project.

RDC:mk

cc: R. D. Church

APPROVED
H S Coulter
STATE HIGHWAY ENGINEER
DATE: 9/27/79

Surety letter written 9-28-79.
klp

8955

Report #3 FINAL

FORM 81-734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: MP. 40.2 to M.P. 44		WEEK ENDING: July 13, 1979
		SECTION PREFIX: 131-4211
HIGHWAY: Ukiah - Hilgard		COUNTY: Union
NAME OF JOB: M.P. 40.2 - M.P. 44.0	KIND OF WORK: Paving	
CONTRACTOR: Baker Redi-mix Inc.	CONTRACT NUMBER: 8955	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: May 31, 1979	DATE WORK STARTED: June 28, 1979	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 17 SUPERVISION: 2	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $ 138,440.00	SPECIFIED COMPLETION DATE: August 15, 1979	PERCENT OF TIME ELAPSED: 55
EXCLUSIVE OF ENGINEERING: $ 133,440.00	ENGINEERING AUTHORIZATION $ 5,000.00	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 148,455.06	ENGINEERING COST TO DATE $ 1,773.34	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED PERCENT: OVERRUN / UNDERRUN 11 %	This week $828,89 PERCENT OF AUTHORIZATION 35 %	DATE PROJECT WAS COMPLETED:

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
				100			

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					3.8
MILES PARTIALLY COMPLETED					
MILES COMPLETED					3.8
TOTAL ESTIMATED QUANTITIES (CONTRACT)					4940
TOTAL QUANTITIES CORRECTED TO DATE					5532
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					5532
AVERAGE DAILY QUANTITIES					-
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					-
NUMBER OF SHIFTS PER DAY					1
HOURS PER SHIFT					10

EQUIPMENT USED DURING THE WEEK:

Paving machine, trucks, rollers, etc

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 8	Ptly cldy, warm			
MONDAY 9	Cldy, warm			
TUESDAY 10	Cldy, warm			
WEDNESDAY 11	Cldy, warm			Completion date
THURSDAY 12	Overcast, warm			
FRIDAY 13				
SATURDAY 7				

RECEIVED
JUL 16 1979
CONSTRUCTION BRANCH

Kessler, Jackmond, Hopkins, Williams, Johnson, Glenn, Richards, Berg, Inloes, Widmer, Debauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY 8	No activity
9 MONDAY	Paving class "C" AC MP 40.94 to 40.4 Lt.
10 TUESDAY	Laying class "C" AC MP 40.67 to 39.76 Rt.
11 WEDNESDAY	Laying class "C" AC MP 40.4 to 39.76 Lt. Paving completed.
12 THURSDAY	
13 FRIDAY	
SATURDAY 7	No activity

REMARKS

Project completed 7-11-79

Plan to complete clean-up 7-18-79

Semi-final records will be submitted to region 7-16-79.

RECEIVED
JUL 18 1979
CONSTRUCTION
BRANCH

SIGNED Joseph A. Schlieski LOCATION La Grande

Joseph A. Schlieski

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

SP-F216

8955

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

May 2, 1979

FROM: John W. Sheldrake
Maintenance Operations Engineer

TO: R. L. Schroeder
Maintenance Engineer

SUBJECT: Purchase Requisitions 15756 & 15757 - Machine Patching Ukiah-Hilgard Highway and Medical Springs Highway

The two subject purchase requisitions were sent in by Region 5 for maintenance-type machine patching/overlay. Funds are available in this fiscal year and both jobs are heavy maintenance sections and both within the reach of commercial plants.

The project on the Ukiah-Hilgard Highway is on a distorted section with some soft spots, and heavy patching would be required if the machine overlay was not accomplished.

The project on the Medical Springs Highway between M.P. 36.0 and M.P. 40.5 covers part of a section intended to be transferred to Baker County along with other sections of highway relating to the assumption of the Whitney-Tipton Forest Service Highway by the Highway Division. Region advises that the northerly two miles of this 4.07 mile section (M.P. 38.47 - the Chandler Interchange to M.P. 42.54, the ~~Comel~~ Street Interchange) is in pretty poor shape and would possibly have to be fixed up somewhat before the County accepted it anyway. This job extends northerly another two miles, picking up another section that is in fairly poor shape and would require heavy blade patching if the machine patching was not accomplished.

The intentions were that both of these jobs would be completed before the end of the fiscal year utilizing available maintenance funds.

In talking with Don Harwell by the way, there seems to be some questions remaining concerning Baker County's acceptance of the trade-off mileage prior to actual assumption of the Whitney-Tipton Forest Highway by the State.

Region advises that these two jobs were not sent in earlier for possible Transportation Commission contracting as they were not considered of sufficient size to warrant a formal Commission contract, but rather were the type of job more appropriate to go through the Department of General Services routing.

Att.
cl

5-3-79
Hershey
Proceed as quickly as possible. - Can we have a 2 wk adv.
ESH

NOTED
R. L. SCHROEDER

cc Loulta Schroeder

RECEIVED TECHNICAL SERVICES
MAY 3'79
REFER TO
FOR
C&S
Arch
Struc
E/C
R/W
Survey
Hwy.

MAINTENANCE ENGINEER
RECEIVED
FOR MAY 2 1979
ME MOE MSM MOC AG MMS

Form 61-734-1034

OREGON STATE HIGHWAY DIVISION

Purchase Requisition

FOR FIELD OFFICES, FIELD CREWS, AND SHOPS

№ 15756

La Grande, Oregon

April 18, 19 79

To REQUISITION OFFICE—

Please order the following items to be delivered as stated hereon:

Ship to OREGON STATE HIGHWAY DIVISION

Care of C. K. Ansell, District Engineer

Street Route 3, Box 4032

City La Grande *Zip Code* 97850

Signed C. K. Ansell

Approved William Tudor

Regional Engineer or Unit Head

Approved .....

Section Head

All requisitions for construction materials of any kind must show the purpose for which the materials are to be used, and the order to which they are to be charged.

Quantity Ordered	Unit	DESCRIPTION	Cost Distribution
Class "B" 4,940	A.C. Tons	Machine maintenance overlay with asphaltic concrete tacked	131-4465-101
		with RS-1. Material to be placed between M.P. 40.2 and 44.0	
		on the Ukiah-Hilgard Highway #341 (Ore 244)	
		Standard Specifications "State of Oregon, for Highway Construction", dated 1974, to apply, in particular Section 401, 403 and 407, Asphalt Concrete Pavement, with the following exceptions. Payment will be for 2" lift of Class "B" Asphaltic Concrete Mixture in place with no addiitonal payment for asphaltic cement in the mixture. Machine overlay and tacking to be at 20-foot widths.	
		Contractor will furnish signs and flagmen as per the Standard Specifications "State of Oregon for Highway Construction", dated 1974, and Oregon Manual on Uniform Traffic Control Devices dated 1971. There will be no additional payment for signs and flagmen, it being understood that payment for this is included in the price bid per ton for the Asphaltic Concrete Mixture.	
		(continued on attached sheet)	

Approved for purchase request .....

Purchase Request Number

Purchase request forwarded .....

Office Number

ORIGINAL—Copy for Requisition Office

SP*10285-734

Purchase Requisition No. 15756

Payment: The pay quantity will be the contract unit price per ton for the item Class "B" Asphaltic Concrete. The pay quantity will be the contract unit price per ton for the item RS-1 asphalt in tack coat. All work must be completed and payment requested therefore, by itemized invoice, no later than June ~~30~~ 25, 1979.

The State of Oregon may elect to increase or decrease the quantity or quantities indicated by any amount up to fifty percent (50%) at its option.

The estimated cost of the project is $119,000.

#24 ...

Possible Bidder:

Rogers Asphalt Paving Company,
P. O. Box 200,
La Grande, Oregon

1979 N. 6th St. @ "A" 8956
St. (Grants Pass) Redwood
Hwy. (Traffic signal)

CQA 6684 10-5-78

8956

L.

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

5-1-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Hamilton Electric, Inc. No. 8814	Crater Lake Hwy. @ Spring St. & McAndrews Road (Medford)	April 10, 1980
Riverbend Const. Co. No. 8696	SW 29th St.-Pendleton/John Day Hwy. (Pendleton)	April 15, 1980
Morse Bros., Inc. No. 9007	Eddyville-Cline Mt.	April 18, 1980
Tice Electric Co. No. 8861	Farmington Hwy. @ SW 170th Ave.	April 18, 1980
Sims Electric of Medford, Inc. No. 8956	N. 6th St. @ "A" St. (Grants Pass)	April 22, 1980
D Mc D Corporation No. 8760	Oxbow Section	April 22, 1980
R. L. Coats No. 8958	Fox-Beech Cr. Summit	April 30, 1980
Baker Redi-Mix, Inc. No. 8907	Boot Hill Cemetery-Dog Creek	April 30, 1980
Tawn Mar Const. Co. No. 9066	Antone Junction	April 30, 1980
Jarl Const., Inc. No. 8639	Rhea Road Reloc. Unit, John Day Hwy.-Heppner Hwy.	May 7, 1980

May 8, 1980

C. T. Keasey
Asst. State Highway Engineer

1956

April 25, 1960

United Pacific Insurance Co.
Fidelity and Surety Department
P.O. Box 1216
Tacoma, Washington 98401

COM 5
#8954

Gentlemen:

Contract No. 9524 awarded to Sims Electric of Medford, Inc., for traffic signal installation on North 6th Street at "A" Street in Grants Pass was completed on March 19, 1960, and accepted by the State Highway Division on April 22, 1960.

Final payment in the amount of $1,015.88 will be released to the contractor after April 30, 1960. The total contract amount is $28,861.88 and no work was performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

Robert H. Gorman
COMMISSION Secretary

fkm

cc Sims Electric of Medford, Inc.
29 West Main
Medford, OR 97501

bc C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Macek
Alfred Shirley

8956

FORM 61-734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: 6th and A Street Signals		WEEK ENDING: 29 March 1980
		SECTION PREFIX: 17-8216
HIGHWAY: Redwood		COUNTY: Josephine
NAME OF JOB: N 6th and A St. (Grants Pass)	KIND OF WORK: Signal Revision and Update of existing system	
CONTRACTOR: Sim's Electric	CONTRACT NUMBER: 8956	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: 5 July 1979	DATE WORK STARTED: 4 September 1979	ESTIMATED COMPLETION DATE: 21 March 1980
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 240	CALENDAR DAYS USED 237
PROJECT AUTHORIZATION: $ 35822.47	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED 98.9
EXCLUSIVE OF ENGINEERING: $ 32693.87	ENGINEERING AUTHORIZATION $ 3128.60	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST 98.1
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 28861.00	ENGINEERING COST TO DATE $ 3300.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION 89.8
ESTIMATED PERCENT: ~~OVERRUN~~ UNDERRUN 11.7 %	PERCENT OF AUTHORIZATION 105.5 %	DATE PROJECT WAS COMPLETED: 19 March 1980

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 23	Ptly Cldy	0		
MONDAY 24	Ptly Cldy	0		
TUESDAY 25	Ptly Cldy	0		
WEDNESDAY 26	Lt Shwrs	0		
THURSDAY 27	Ptly Cldy	0		
FRIDAY 28	Ptly Cldy	0		
SATURDAY 29		0		

Keesey
Jackmond
Hopkins
Williams
Johnson
Olsen

RECEIVED
MAR 3 1 1980
CONSTRUCTION BRANCH

Richards
Berg
Inlow
Widmer
Gebauer
Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY 23	No activity
MONDAY 24	No activity this week.
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY 25	Final inspection of project. James Gix, Region Const. Engr., Hod Wells, City Engineer, and Keith Martin, Resident Engineer
SATURDAY	

REMARKS

STATUS: Project complete, awaiting final documents for thrid notification.

NEXT WEEK: Submittal of semi-final 4 April 1980

THIS IS THE FINAL REPORT

RECEIVED
MAR 3 1980
CONSTRUCTION
BRANCH

SIGNED Keith L. Martin LOCATION Grants Pass

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

SP-7216

8956

VICTOR ATIYEH
GOVERNOR

Oregon State Highway Division

TRANSPORTATION BUILDING, SALEM, OREGON 97310

CON 5 #8956

December 27, 1979

Sims Electric of Medford, Inc.
29 West Main
Post Office Box 1430
Medford, OR 97501

Gentlemen:

Re: Time Extension Request
N. 6th St. @ "A" Street (Grants Pass)
Contract No. 8956

Your request for a 30 calendar day extension of contract time on the above project has been carefully reviewed. Based on the data submitted, additional contract time does not appear warranted. The clarifications of the contract Special Provisions obtained by your supplier appears to be the type of information which should have been known or obtained prior to bid submission in accord with contract Standard Specification Subsection 102.05. Your request must therefore be denied.

Should you wish to submit additional data or review this matter further, please contact Resident Engineer Martin.

Sincerely,

C. T. Keasey
Assistant State Highway Engineer

By
O. B. Jackmond
Contract Administration Engineer

OBJ:fr

bc: H. S. Coulter
Alfred Shirley
Keith Martin

RECEIVED
STATE HWY ENGR
DEC 28 '79
REFER TO
FOR
Info Appvl Sig Cmt Ret Inv

STATE OF OREGON

INTEROFFICE MEMO
FILE; CON 5 #8956

Highway Construction
DEPT.

378-6318
TELEPHONE

TO: Memo to File

DATE: December 27, 1979

FROM: O. B. Jackmond
Contract Administration Engineer

SUBJECT: Time Extension Request
N. 6th St. @ "A" Street (Grants Pass)
Contract No. 8956

Sims Electric of Medford, Inc., contractor on the above project, has requested a 30 calendar day extension of contract time. The contractor bases his request on the need for his supplier to meet with our Signal Design Unit to resolve "programming and offset" questions. The contractor claims that this delayed the controller shipment date from December 28, 1979 to February 14, 1980, or 47 calendar days. His requested time extension is for 30 calendar days.

This contract was awarded on July 5, 1979. During the first part of October (actual dates are unknown, but prior to October 15) the contractor's supplier representative visited with our Signal Design Unit and requested clarification of two items in the contract Special Provisions - programming and offsets. By letter of October 15, 1979, the Traffic Section notified the Resident Engineer of clarifications to be provided to the contractor and stated that the factory representative had been advised by telephone.

These clarifications of the Special Provisions are not deemed to be significant alterations of the specifications, and appear to be information that should have been obtained or understood upon submission of the contractor's bid. (See the attached letter of December 10, 1979 from the Traffic Section.) It should also be noted that the contractor's selected supplier did not seek this clarification until approximately three months after contract award. This delay is unexplained by the contractor.

Based on data currently available, additional contract time does not appear to be warranted.

OBJ:fr
Att.
cc: H. S. Coulter
Alfred Shirley
Keith Martin

TRA 16-6-16

STATE OF OREGON

INTEROFFICE MEMO

Highway - Traffic
DEPT

378-6537
TELEPHONE

TO O. B. Jackmond
Contract Administration Engineer

DATE December 10, 1979

FROM L. E. George
Traffic Engineer

SUBJECT: Traffic Signal Installation
6th and "A" Streets - Grants Pass
Contract No. 8956

Subsection 102.05 states that the contractor is required to examine the plans and specifications for conditions to be encountered in performing the requirements of the contract prior to bid submittal.

It appears that the proper time for interpretation is prior to submitting a proposal.

Based on this subsection, this office recommends that the time extension be denied.

L. E. George
Traffic Engineer

WRZ:jrb

Attachment

12-11-79
copies to
Jim Bird
Keith Ludwig

RECEIVED
DEC 11 1979
CONSTRUCTION
BRANCH

ORE. STATE HIGHWAY DIVISION
RESIDENT ENGINEER
RECEIVED
DEC

875.6

L

Oregon State Highway Division

TRANSPORTATION BUILDING, SALEM, OREGON 97310

ROW 18-4

October 4, 1979

NOTED
E. S. HUNTER

Mr. Glen L. Green
Division Administrator
Federal Highway Administration
530 Center St. NE, Suite 100
Salem, OR 97301

Cost Overrun
Power Line Relocation
Coos-Curry Electric Cooperative, Inc.
Remote Section
Coos Bay-Roseburg Highway
Coos County
Project No. F-14(5)

Dear Mr. Green:

Reference is made to my letter of May 4, 1978, which submitted an estimate of cost from Coos-Curry Electric Cooperative, Inc. for the relocation of their aerial power line facilities in conflict with the subject project. Reference is also made to your PR-1240 dated May 12, 1978, which approved the relocation work by the Cooperative.

The relocation of the Cooperative's power line facilities has been completed. Final cost of the relocation work is $30,790.48. This is an overrun of $8,986.26 or 41.21% of the approved estimated cost. The Cooperative has provided an explanation for the cost overrun in their letter of August 29, 1979, a copy of which is attached. The State concurs with their explanation. Attached for your information is my letter of May 4, 1978 and your PR-1240 dated May 12, 1978.

Your approval for Federal participation in the total relocation cost of $30,790.48 is requested. The cost overrun will be covered by SFO No. 4, Supplement No. 1, under project No. F-14(5), Prefix 6-1057-285-04.

RECEIVED TECHNICAL SERVICES
OCT 4 '79
REFER TO
FOR
File
Act
Sign
D/R
R/D
Invest
Info

Yours truly,

D. E. Swan
Operation Programming Engineer

JMC:

Enclosures

bc: E. S. Hunter, Jack M. Cartwright, Rich Evans, John Christopherson

8956 476-8801

June 8, 1979

City of Grants Pass
City Hall
Grants Pass, Oregon 97526

Attn: Rich Edelblute.
~~Fred W. Hemp, Jr.~~
Finance Director

Gentlemen:

On June 7, 1979 a satisfactory bid was received from Sims Electric of Medford, Inc., P.O. Box 1430, Medford, Oregon 97501 for installing traffic signals on the Redwood Hwy. (6th Street) at "A" Street Section. The advance deposit based on the anticipated construction cost of their bid is as follows:

Bid Items	$29,986.00
Permanent Signing	300.00
Signal Controller Testing (Engineering)	300.00
4 1/2% Contingencies	1,407.87
10% Construction Engineering	3,128.60
ESTIMATED TOTAL COST	$34,822.47

City's Advance Deposit: say $34,800.00.

This project will be awarded upon receipt of your advance deposit, which should be in this office no later than June 29, 1979.

Please make your check for $34,800.00, payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

ORIGINAL SIGNED BY
D. E. SWAN

D. E. Swan
Federal Aid Engineer

FH:pf

bcc w/AD # 645: Jack Ayres, Federal Aid Specialist
Vern Skoog - Please return completed AD # 645 when check is received.

7-5-79 Check rec. Contract awarded notified J. Ayres (ft)

6-27-79 Finance Director will run down the check and try to get in to the mail Today. (ft)

FURNITURE WOLF CR TAVERN	CONT NO		FA PROJ NOS				285 00		285 00
	017	8211	270	00					
	017	8211	900	00	2,138 88		12,415 30		12,415 30
	017	8211	993	00	1,975 00CR		1,140 00		1,140 00
			** JOB TOTALS **		163 88	**	13,840 30	**	13,840 30 *
STATE FOREST SERVICE-FIRE F	CONT NO		* FA PROJ NOS						
	017	8212	199	00			181 59		181 59
	017	8212	594	00			181 59CR		181 59CR
			** JOB TOTALS **		**		**		*
G PSS PE SIG INST RDWOOD 6&A	CONT NO		FA PROJ NOS						
	017	8213	901	00	422 08CR		12 98		12 98
	017	8213	905	00	32 55		121 70		121 70
	017	8213	911	00	40 62CR		713 20		713 20
			** JOB TOTALS **		430 15CR	**	847 88	**	847 88 *

6-7-79

6-7-79

AL TO DATE JOB COST SUMMARY — APRIL 1979 — PAGE 187

SCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION	SR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE
JOSEPHINECNT/PPELENG3RDBR	CONT NO		FA PROJ NOS				
	017	8214	594	00	1,349 65CR	2,654 62CR	2,654 62CR
	017	8214	900	00		34 84	34 84
	017	8214	901	00	54 52	374 78	374 78
	017	8214	907	00		195 32	195 32
	017	8214	910	00		71 92	71 92
	017	8214	911	00		963 85	963 85
	017	8214	914	00		39 64	39 64
	017	8214	918	00		136 96	136 96
	017	8214	923	00	1,207 26	2,049 09	2,049 09

8956

FURNITURE WOLF CR TAVERN	CONT NO		FA PROJ NOS					
	017	8211	270	00		285 00		285 00
	017	8211	900	00	2.138 88	12.415 30		12 415 30
	017	8211	993	00	1.975 00CR	1 140 00		1 140 00
			** JOB TOTALS **		163 88 **	13 840 30 **		13.840 30 *
STATE FOREST SERVICE-FIRE F	CONT NO		* FA PROJ NOS					
	017	8212	199	00		181 59		181 59
	017	8212	594	00		181 59CR		181 59CR
			** JOB TOTALS **		**	**		*
G PSS PE SIG INST RDWOOD 68A	CONT NO		FA PROJ NOS					
	017	8213	901	00	422.08CR	12 98		12 98
	017	8213	905	00	32 55	121 70		121 70
	017	8213	911	00	40 62CR	713 20		713 20
			** JOB TOTALS **		430 15CR**	847 88 **		847 88 *

6-7-79

6-7-79

AL TO DATE JOB COST SUMMARY — APRIL 1979 — PAGE 1874

SCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION	GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE
JOSEPHINECNTYPPELENGJPDBR	CONT NO		FA PROJ NOS				
	017	8214	594	00	1.349.65CR	2.654.62CR	2.654 62CR
	017	8214	900	00		34 84	34 84
	017	8214	901	00	54.52	374 78	374 78
	017	8214	907	00		195 32	195 32
	017	8214	910	00		71 92	71 92
	017	8214	911	00		963 85	963 85
	017	8214	914	00		39 64	39 64
	017	8214	918	00		136 96	136 96
	017	8214	923	00	1.207 26	2.099 09	2.099 09

8956

8956

Date 4-26-79 PROJECT MANAGEMENT OFFICE MEMO

Subject May 24 Bid letting File No.

Received (call) (visit) from

Address

Made (call) (visit) to Phone

Reason for contact and general discussion: F. Hildebrandt talked to Jack Ayers re approval of plans for North Bend and Grants Pass (Others) signal projects. Jack said plans had been sent to both parties and he has heard no adverse comments. Since financing has already been approved based on the current plans he sees Ayres suggested we advertise for May 24.

I concur.

Marking wants personal contact. Ayres out. Connell (N Bend) says Ok unless he calls by 8:30am. 6th Jam

Signature

Harrell determined that TP moved to June 7

File ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )

Circulate: PME LGE OPE FAE CCE OM Other

Should Dillon and Hillcrest be combined through Grants Pass?

895 6

Section Main St. (1st "A" St. - Knits Loss) Programming Estimate $ _____

Highway Redwood 4-24-79 Project Length —

County Josephine Completion Time 240 calendar days

Kind of Work Traffic Signal Installation _____

Prefix 17-8213- Project No. STATE

ESTIMATED CONSTRUCTION AUTHORIZATION

Estimated Contract Amount $ 30,655.00

Anticipated Additional Items:

Royalty Payment		
Building Permit Fees		
Slide Correction		
Railroad Protective Costs		
Other Railroad Costs		
Permanent Signing	500	
Permanent Pavement Striping		
Temporary Pavement Striping		
Remove Pavement Striping (Exist. & Temp.)		
Temporary Erosion Control		
State Furnished _____		
Install Water Meter		$ 1,300.00
Furnish Water		
Laboratory Fees		
On the Job Trainees		
State Responsibility for Damages		
Signal Controller Testing (Engineering)	800	
Bikeway Signs		
Furnish Mail Box Posts		
Adjust Utilities _____		
_____		
_____		
_____		
Misc. Permit Fees _____		
_____		

	$ 31,955.00
Contingencies (4-1/2%)	1,437.98
Engineering (10 %)	3,195.50
SUBTOTAL	$
Credit for _____	
Estimated Net Authorization, Construction	$ 36,588.48

APPROVED

_____
Road Design Engineer

4/24/79 JL

OREGON STATE HIGHWAY DIVISION

SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 1 of 1

Date 4-24-79

Section N. 6th St. at "A" St. (Grants Pass) County Josephine

Kind Of Work Traffic Signal Installation Length — Name Butler-6292

No	Item	Code	Unit	Quant.	Unit Cost	Total
1	Temporary Protection and Direction of Traffic		Lump Sum	All	Lump Sum	500.00
2	Temporary Signs		Sq. Ft.	253	6.00	1,518.00
3	Temporary Barricades		Each	3	100.00	300.00
4	Flagmen		Hour	40	22.00	880.00
5	Traffic Signal Installation, Complete		Lump Sum	All	Lump Sum	27,457.00
	Total					30,655.00

8956

October 24, 1978

City of Grants Pass
City Hall
Grants Pass, Oregon 97526

Attn: Fred W. Axe, III
Finance Director

Gentlemen:

Estimated cost of the preliminary engineering phase of the installation of traffic signals on the Redwood Highway (6th Street) at "A" Street is $1,155.00.

Please make your check in the amount of $1,155.00 payable to the Oregon State Highway Division and send it to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

G. W. Wimer
Local Government Manager

FFH:dmc

bc: w/AD517 - Vern Skoog - Please return completed AD 517 when check is received.
Region 3 Federal Aid Engineer

FSC
12-26-78
AD 517

notified
Jack Ayers - 12-26-78

Plans Sent
Rgn
3-29-79

8956

October 5, 1978

City of Grants Pass
City Hall
Grants Pass, OR 97526

MISC. CONTRACTS and AGREEMENTS No. 6684

Attention: Fred W. Ams, III
Finance Director

Gentlemen:

Attached for your records is a fully executed copy of an agreement for installation of traffic signals on the Redwood Highway (6th Street) at "A" Street in Grants Pass, Josephine County.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Very truly yours,

C. W. Read
COMMISSION SERVICES

ddn
Attachment

bc Don Harwell (Conf. agreement attached)

8956

STATE OF OREGON

INTEROFFICE MEMO

ODOT - Traffic — DEPT.

378-6537 — TELEPHONE

TO: D. H. Moehring, Manager
Office of Project Management

DATE: June 23, 1978

FROM: L. E. George
Traffic Engineer Supervisor

PROJECT MANAGEMENT
PME ☐ CCE ☐ OM
LGE ☑ FAE ☐ OFE
JUN 26 1978
TAA Holmes ✓ FILE: PM FA LG OP

SUBJECT: Traffic Signal Reconstruction
Redwood Highway at
Intersection of 6th and "A"
Grants Pass

Please prepare an agreement pertaining to the subject intersection wherein the state accomplishes the preliminary and construction engineering at city expense. The maintenance after reconstruction will be assumed by the state. The signal timing will be set by the state and any revisions will be mutually agreeable. The existing traffic signal agreement for the balance of the traffic signals in Grants Pass will not be affected by this agreement except in reference to this one intersection.

The city will have an opportunity to review the plans prior to advertising for bid. The city will be asked for 100% of the anticipated cost of the preliminary engineering phase prior to work commencing. 100% of the bid price and construction engineering cost will be required as an advance deposit prior to contract award.

This project was discussed in detail with Mr. Bergman several months ago and this request is an outgrowth of that meeting. In attendance at that meeting were Region III representatives as well as the writer.

L. E. George
Traffic Engineer Supervisor

GLC/ds

cc Alfred Shirley, Jr.

21-125-1967

8956

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

HIGHWAY DIVISION

TRA 7

Region 3

P.O. BOX 1128, ROSEBURG, OREGON 97470 PHONE 672-6658

June 23, 1978

Ron S. Bergman
City Manager
City of Grants Pass
101 N.W. "A" Street
Grants Pass OR 97526

Dear Ron:

This letter is to advise you that the state will do the engineering work on the modernization of the traffic signal at the intersection of 6th and "A" Streets.

It is understood that all costs will be borne by the City of Grants Pass.

By a copy of this letter, I am requesting our Project Management Section to proceed with the preparation of an agreement to accomplish the work.

Cordially,

ORIGINAL SIGNED BY ALFRED SHIRLEY, JR.

ALFRED SHIRLEY, JR.
Regional Engineer

as/cw

cc D. H. Moehring – b.th P.E. and Construction Engg.
George Thornton

PROJECT MANAGEMENT
PME ☑ CCE ☐ OM ☐
LGE ☑ FAE ☐ OPE ☐
JUN 26 1978

TAA Holmes File: PM FA LG OP

8956

Date 6-20-78 PROJECT MANAGEMENT OFFICE MEMO

Subject Traffic Signal 6th & A, Grants Pass File No.

Received (call) (~~visit~~) from Alfred Shirley

Address

Made (call) (visit) to Phone

Reason for contact and general discussion: Grants Pass gets some OEC money and they want us to up grade the traffic signal at 6th & A streets. They will pay the bill and want us to do the Engineering and construction ($35,000).

Told Bud to go ahead as it was good of them to offer to do so. (The signal will help their A street traffic.

Signature

File (✓) ( ) (M) ( ) ( ) (H) ( ) (O) Holmes

Circulate: PME LGE OPE FAE CCE OM Other

8956

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

HIGHWAY DIVISION

TRA 7

Region 3

P.O. BOX 1128, ROSEBURG, OREGON 97470 PHONE 672-6658

June 13, 1978

Ron S. Bergman
City Manager
City of Grants Pass
101 N.W. "A" Street
Grants Pass OR 97526

Dear Ron:

Your letter of June 8, 1978 proposes that the city provide funds of $35,000 to modernize the traffic signals at 6th and "A" Streets on the Redwood Highway in the City of Grants Pass.

We will pass this on to the Salem headquarters with a recommendation that an agreement be prepared to do this work.

I must say at this point in time that I do not know whether the Transportation Commission would be willing to commit its manpower resources to do this but we will recommend so anyway.

Cordially,

ORIGINAL SIGNED BY ALFRED SHIRLEY, JR.

ALFRED SHIRLEY, JR.
Regional Engineer

as/cw

cc D. H. Moehring [redacted]

6/15
Copy to L.E. George with request for approval to proceed.
Mains

PROJECT MANAGEMENT

PME ☑	CCE ☐	OM ☐	
LGE ☑	FAE ☐	OPE ☐	

JUN 14 1978

TAA Holmes	File	PM	FA
		LG	OP

8956

city of grants pass
101 n.w. "a" street
grants pass, oregon 97526
(503) 476-8801

June 8, 1978

Alfred Shirley, Jr.
Department of Transportation
1523 S.E. Cobb Street
Roseburg, Oregon 97470

Dear Bud:

We would like to have the Oregon State Highway Division let a contract to reconstruct the traffic signals at 6th and "A" to bring them up to state standards so you will assume all maintenance responsibility for them.

As we have discussed the signals at this intersection are deteriorated to the point that nothing but a major overhaul will put them in a dependable condition. We want this intersection improved so that when we are able to convert all our traffic signals to microprocessor controlled this intersection will fit in that system without any difficulties.

We would like these signals to be hung from mast arms as opposed to span wires. I understand the price for 3-mast arm poles and one pedestrian signal pole would be approximately the same as 4 poles from which span wire would be run.

We have $35,000 that can be used for modernizing our traffic signals and we hope to be able to do more than just this one signal but we want to do this one completely up to state standards before we do any others.

We are commiting this $35,000 to this project and we would appreciate a written reply from you acknowledging this commitment and agreeing to this project as outlined.

If you have any questions about this please call Tom Weldon, 476-8801.

Sincerely,

Ron S. Bergman
City Manager

CF #119-78
RSB/GTW/so

ROSEBURG REGION
RECEIVED
JUN 12 1978

RE	RME	RCE	RCE	FE
RDE	DES	RSR	RPR	RLE
ENV	TAE	RBI	SEC	

.1979 Lawnfield Rd. - 8957
.Clack. Hwy. FAU 9653
.SE 82nd Dr. (Gr. pav. sign)

A 59J9 1-13-77

8957

OREGON STATE HIGHWAY DIVISION

ITEMIZED STATEMENT OF FINAL COSTS DATE: 7-1-82

COUNTY CLACKAMAS Contract No. 8957 Date Completed 4-4-80

PROJECT # M-9653(1) IX-9653(3) Section Lawnfield Rd.-Clackamas Hwy.-82nd Drive

PAYMENTS TO CONTRACTOR Agreement No. 5939

ITEM		TOTAL COST
Preliminary Engineering (Prefix No. 303-1938) FAU Funds		
Resident Engineer		$ 24,634.16
Work by County		2,585.75
Final Design		9,957.44
Preliminary Design		12.56
R/W Descriptions		59.12
Soils & Geology		1,171.04
Signing		330.62
R/W Liaison		46.30
Utility Liaison		753.15
Audit Expense		32.60
Reconnaissance & Hydrology		137.97
Project Management		96.85
Specifications		1,149.01
Administrative Services		43.71
Environmental Section		4,047.45
Public Hearing		169.90
TOTAL P.E. COST		$ 45,227.63
Construction: (Prefix No. 303-1009) FAI-X Funds		
Payment to Contractor		$409,866.98
Interest on Final Payment		57.05
Credit for Retainage Administrative Cost		(8.64)
SFO #1 Striping		2,283.36
SFO #4 Paint Curbs in No-Parking Zone		670.38
Construction Engineering		50,567.71
SFO #3 Const. Engineering by County		1,361.90
Audit Expense		243.21
Project Management		80.72
Accounting Section		8.64
Construction Section		11.94
Training		79.14
Personal Leave		96.12
EEO Monitoring		119.15
TOTAL CONST. COST		$465,437.66
MATCH COMPUTATIONS		
Total P.E. Cost		$ 45,227.63
Less Federal Funds (FAU)		(38,680.05
BALANCE		$ 6,547.58
Less Non-Participating Costs:		
Resident Engineer	$113.38	
Audit Expense	32.60	$ (145.99)
AMOUNT TO BE SHARED		$ 6,401.59

STATE SHARE P.E.: 50% of $6,401.59 = $3,200.80

FORM 734-1745

COUNTY SHARE P.E.: (50% of $6,401.59) + $145.99 = $3,346.78

TOTAL CONSTRUCTION COST		$465,437.66
		(393,474.29)
BALANCE		$ 71,963.37
Less Non-Participating Costs:		
Payment to Contractor	$ 750.00	
Interest on Final Payment	57.05	
Credit for Ref. Adm. Costs	(8.64)	
Construction Engineering	98.69	
SFO #3 Const. Eng. by County	1,361.90	
Audit Expense	162.97	
Accounting Section	8.64	
Personal Leave	96.12	$ (2,526.73)
AMOUNT TO BE SHARED		$ 69,436.64

STATE SHARE CONST.: $\frac{9}{15}$ x ($69,436.64 + $203.45) = $41,784.05

COUNTY SHARE CONST: $\frac{6}{15}$ x $69,436.64 + (2,526.73 - $122.07) = $30,179.32

Plus P.E.	3,346.78
Less County's Advance Deposit	(31,950.00)
AMOUNT DUE FROM COUNTY	$ 1,576.10

ACCOUNTING: Please attach Itemized Statement to Invoice

cc: Jon Rose, Metro Region

8957 2-17-82

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

1. FEDERAL-AID PROJECT NO.: IX-9653(3)

2. STATE PROJECT NO.: See below

3. FROM: Dale E. Wilken, Division Administrator
FHWA - Oregon Division

4. PROGRAM NO.:

5. ITEM NO.: 71418

2A. COUNTY NAME: Clackamas

6. TO:

Mr. H. S. Coulter
State Highway Engineer
State of Oregon
Salem, Oregon

7. DATE AUTHORIZATION EFFECTIVE: 8/29/80

8. FEDERAL ROUTE NUMBER: FAU 9653

9. STATE ROUTE NUMBER: County Road

10. GENERAL LOCATION:

Lawnfield Road - Clackamas Highway Section

11. GENERAL DESCRIPTION OF WORK

Paint curbs yellow in No Parking Zone

12. YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- [ ] PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- [ ] PRELIMINARY ENGINEERING FOR CONTRACT PLAN PREPARATION
- [ ] ACQUISITION OF RIGHT-OF-WAY
- [ ] CONSTRUCTION -- ADVERTISE FOR RECEIPT OF BIDS
- [X] CONSTRUCTION PROCEED ON FORCE ACCOUNT BASIS
- [ ] OTHER *(Specify)*

13. REMARKS

I approve the advance authorization date of 8/29/80 as requested in Mr. Keasey's letter of 2/2/82 as being in the public interest for the use of County Forces to proceed with the above work. State Force Order No. 4 representing work performed by Clackamas County Forces is approved for a TEC of $670.38 Federal Funds $570.00.

RECEIVED
STATE HWY ENGR
FEB 23 '82
REFER TO
FOR
Hwy. Inves. R/W Bridge Const. Proj. Files

14. DATE: 2/17/82

15. SIGNATURE OF APPROVING OFFICIAL: G. K. Hansen

16. TITLE: for Division Administrator

FORM PR 1240 (Rev. 12-79) PREVIOUS EDITIONS MAY BE USED

8957

- TO BE COMPLETED BY FHWA	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State
MONTHLY TRANSACTION NUMBER 4-142		OREGON
PROJECT REPORT NUMBER	MODIFICATION OF FEDERAL-AID PROJECT AGREEMENT	County CLACKAMAS
MODIFICATION NUMBER 1	4/13/81	Project Number IX-9653(3)

The Project Agreement for the above-referenced project entered into between the undersigned parties and executed by the Division Administrator on July 30, 19 79, is hereby modified as follows:

	Former amount	Revised amount
Estimated total cost of project	$ 538,825	$ 528,001
Federal funds	$ 458,000	$ 448,800
Other revisions		

This modification is made for the following reasons: To release $9,200 federal funds from reserve amount to be utilized for an increase in County force work on Project No. IX-9659(6).

All other terms and conditions of the Project Agreement will remain in full force and effect. This modification is effective as of the 13th day of April, 19 81.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By _____

Operation Programming Engineer
(Title)

By For: H.S. Coulter

State Highway Engineer
(Title)

By _____

(Title)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: D.E. Wilken

Form PR-2A (Rev. 10-75) Previous editions are obsolete

Gen file

Oregon State Highway Division
Salem, Oregon April 10, 1981

Federal Aid Project
No. IX-9653(3)

Lawnfield Road-Clackamas Highway Section
FAU 9653 (S.E. 82nd Dr.)
Clackamas County

REVISED PROJECT AGREEMENT ESTIMATE

Type Code 6201
Roadway (Sta. 227+90 to Sta. 262+30)

Total Same as previous estimate of July 20, 1979 $512,501.00

Length of Roadway ---------- 0.652 mi.
Cost of Roadway per mile----------$786,044.48

SUMMARY OF FUNDS (85%)

Description	Total Cost	Federal Funds	(9%) State Funds	(6%) County Funds
Roadway	$512,501.00	$435,625.00	$46,126.00	$30,750.00
Reserve	15,500.00	13,175.00	1,395.00	930.00
TOTAL	$528,001.00	$448,800.00	$47,521.00	$31,680.00

Group 1 100%
Contract No. 8957
Prefix 303-1009

.8957. 7-30-19 STATE COPY

OMB No. 04-R2089

TO BE COMPLETED BY FHWA MONTHLY TRANSACTION NO. 8-22	U. S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL-AID PROJECT AGREEMENT 7-30-19	State Oregon County Clackamas Project No. IX-9653 (3)

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

Lawnfield Rd. - Clackamas Hwy. Section

PROJECT CLASSIFICATION OR PHASE OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING AND RESEARCH (HP & R)		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	5-16-79	0.562
OTHER *(Specify)*		

FUNDS Pre Date 35%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 812,501	$ 435,625

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By A.D.McLoeburg

Asst. State Highway Engineer
(Title)

By For: H. S. Coulter

State Highway Engineer
(Title)

By _____

_____
(Title)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By _____
(Division Administrator)

For: G. L. Green

Date executed by Division Administrator JUL 30 1979

Form PR-2 (Rev. 10-75) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PREPARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation..

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtednesss of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 307 (c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Administrator concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

Oregon State Highway Division
Salem, Oregon, July 20, 1979

Federal Aid Project
No. IX-9653 (3)

Lawnfield Road-Clackamas Highway Section
FAU 9653 (S.E. 82nd Dr.)
Clackamas County

Project Agreement Estimate

Type Code 6201
Roadway (Sta. 227+90 to Sta. 262+30)

Mobilization	All Required		$ 25,000.00
Temporary Protection and Direction of Traffic	All Required		9,000.00
Temporary Signs	232 Sq.Ft.	8.00	1,856.00
Temporary Barricades	43 Each	125.00	5,375.00
Temp. Cont. Rail Traffic Barrier, Reflectorized	225 Lin.Ft.	15.00	3,375.00
Temp. Reflectorized Pvmt. Markers	152 Each	4.50	684.00
Flagmen	1,000 Hour	20.00	20,000.00
Clearing and Grubbing	All Required		3,000.00
Removal of Structures and Obstructions	All Required		2,000.00
General Excavation	2,930 Cu.Yd.	9.00	26,370.00
Trench Excavation	1,000 Cu.Yd.	9.00	9,000.00
Finishing Roadbed and Slopes	All Required		6,500.00
Watering	75 M-Gal.	20.00	1,500.00
1"-0 Aggregate Base	3,220 Ton	8.50	27 370.00
Class "B" Asphalt Concrete Mixture	6,910 Ton	14.50	100,195.00
Asphalt Cement in Mixture	450 Ton	84.00	37,800.00
Asphalt in Tack Coat	4 Ton	250.00	1,000.00
8-inch Sewer Pipe	289 Lin.Ft.	7.00	2,023.00
12-inch Sewer Pipe	2,389 Lin.Ft.	8.00	19,112.00
15-inch Sewer Pipe	9 Lin.Ft.	30.00	270.00
Extra for Pipe Under Pavement	407 Lin.Ft.	10.00	4,070.00
Concrete Manholes	15 Each	1,400.00	21,000.00
Concrete Inlets, Type CG-1	41 Each	413.00	16,933.00
Concrete Walks	2,340 Sq.Yd.	12.00	28,080.00
Concrete Driveways	410 Sq.Yd.	23.00	9,430.00
Sidewalk Ramps	6 Each	193.00	1,158.00
Concrete Curbs	5,500 Lin.Ft.	8.00	44,000.00
Concrete Steps	40 Lin.Ft.	14.00	560.00
Extra for Asphalt Approaches	17 Each	150.00	2,550.00
Extra for Asphalt Slope Paving	55 Sq.Yd.	7.00	385.00
Adjusting Inlets	3 Each	200.00	600.00
Removal of Existing Sign Installations	All Required		200.00
Wood Sign Posts	All Required		7,570.00
Sign Support Footings	All Required		1,650.00

Oregon State Highway Division
Salem, Oregon, July 20, 1979

Federal Aid Project
No. IX-9653 (3)

Offset Single Sign Supports	All Required		$ 3,300.00
Type "C" Signs in Place	82 Sq.Ft.	17.00	1,394.00
Type "T" Signs in Place	155 Sq.Ft.	17.00	2,635.00
Type "EE" Signs in Place	44 Sq.Ft.	17.00	748.00
Move, Modify and Reinstall Existing Signs	All Required		1,650.00
			$ 449,343.00

Anticipated Items

Permanent Pavement Striping	All Required	$ 1,700.00
Temporary Pavement Striping	All Required	500.00
		$ 2,200.00
	Subtotal	$ 451,543.00
	Engineering	60,958.00
	Total	$ 512,501.00

Length of Roadway - - - - - - - - - - - - 0.652 mi.
Cost of Roadway Per Mile- - - - - - - - $ 786,044.48

Work Retained in Program Status
(Not included in amounts below)

Roadside Seeding and Mulching	All Required	$ 500.00
Adjust Detour Loops (S.F.)	All Required	1,000.00

Summary of Funds

Description	Total Cost	Federal Funds (85%)	State Funds (9%)	County Funds (6%)
Roadway	$ 512,501	$ 435,625	$ 46,126	$ 30,750
Reserve	26,324	22,375	2,369	1,580
Total	$ 538,825	$ 458,000	$ 48,495	$ 32,330

Group 1 100%
Contract No. 8957
Prefix 303-1938
Prefix 303-1009

Oregon State Highway Division
Salem, Oregon, July 20, 1979

Federal Aid Project
No. IX-9653 (3)

Lawnfield Rd.-Clackamas Hwy.
Nonparticipating-State Work

Furnish Mailbox Posts	5 Each	50.00	$ 250.00
Setting Mailbox Posts	11 Each	50.00	550.00

STATE COPY

8957

cy: State (H S Coulter)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL ACCEPTANCE REPORT

4-8-81

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	2	Clackamas	Oregon

DATE OF REPORT	REPORT MADE BY	PROJECT NO.
4-8-81	T. P. Lowe, Area Engineer	IX-9653(3)

COMPLETION DATE	ACCEPTANCE DATE BY CONTRACT AGENCY	TIME ELAPSED	CONTRACT TIME
4-4-80	7-18-80	70 %	250 days

APPROVED EXTENSIONS	LOCATION
--	See below

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

LAWNFIELD RD.-CLACKAMAS HWY.
FAU 9653 (SE. 82nd)
Grading, Paving & Signing

This project provided for the widening of 82nd Drive (on both sides) from just south of Lawnfield Road to just north of the Clackamas Highway in the community of Clackamas. Also included was the construction of curbs and sidewalks and drainage for the length of the project. The final traffic pattern provided for one 12-foot lane in each direction and a 14-foot continuous left turn lane with no parking throughout.

RECEIVED
STATE HWY ENGR
APR 13 '81
REFER TO
Kelly
FOR

Bridge	Bureau	R/D	D/R	Sig	Mat	File

cy to: 4-13-81

*NOTE: Not applicable for direct federal projects.

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE Original Signed By T. P. LOWE T. P. Lowe		SIGNATURE Original Signed By G. K. HOSSNER Field Operations Engineer G. K. Hossner	
TITLE Area Engineer	DATE	TITLE Field Operations Engineer	DATE

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

#8757

Form FHWA 121 (1/80)

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

THE OREGON DIVISION - Salem
UNITED STATES GOVERNMENT

memorandum

Subject: Oregon Project IX-9653(3)
Lawnfield Rd.-Clackamas Hwy.
Clackamas County
Order for Force Work #3

Date: September 5, 1980

From: G. L. Green, Division Administrator

Reply to Attn. of: HFO.1-OR

To: Mr. H. S. Coulter, State Highway Engineer, ODOT

Mr. Keasey's September 3, 1980, letter requesting approval of the subject Order for Force Work covering the County's cost to inspect has been reviewed.

This work is considered to be administrative and, therefore, is not eligible for Federal-aid participation.

G. L. Green

cc:
OSHD (C T Keasey)

RECEIVED
STATE HWY ENGR
SEP 9'80
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

9-18

8957

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

8-6-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
R. A. Hatch Co. No. 8971	Columbia River (Interstate) Bridge Multnomah Co., Oregon Clark Co., Washington	July 14, 1980
Jarl Construction, Inc. No. 8782	North Unit, Condon-Thirtymile Creek Gilliam Co.	July 15, 1980
R. L. Coats No. 8753	Baldock Slough-S. Baker Intchge. Baker Co.	July 18, 1980
Cascade Constr. Co., Inc. No. 8957	Lawnfield Rd.-Clackamas Hwy. Clackamas Co.	July 18, 1980
J. C. Compton Co. No. 8985	Carus Jct.-Woodburn-Estacada Hwy. Clackamas Co.	July 18, 1980
Cushing Bros., Inc. No. 9099	Dundee (S.W. 5th St.) Yamhill Co.	July 21, 1980
J. C. Compton Co. No. 8960	Castle Rock-Cedar Creek (M.P. 4.8-M.P. 16.5) Tillamook & Yamhill Counties	July 22, 1980
Holst Construction Co. No. 8842	Neal Creek Bridge Hood River Co.	July 24, 1980
A-1 Sandblasting & Steam-cleaning Co. No. 8714	Coos Bay (McCullough) Bridge Coos Co.	July 24, 1980
Hertz Electric, Inc. No. 9038	S. Ore. Ave. @ High School Entrance and Monroe St. @ Broadway Ave. (Burns) Harney Co.	July 24, 1980
Morse Bros. Inc. No. 8982	Corvallis/Newport Hwy. @ 19th St. (Philomath) Benton Co.	July 25, 1980
Cascade Constr. Co., Inc. No. 8923	Wilson River Hwy. Jct.-Vista Ridge Tunnel Washington and Multnomah Counties	July 29, 1980
Tawn Mar Constr. Co. No. 9065	Parsnip Creek Rock Production Lake Co.	July 29, 1980
L. W. Hembree Co. No. 8981	SW Capitol Hwy. @ SW Huber St. (Portland) Multnomah Co.	July 30, 1980

Contractor and Contract No.	Section and County	Acceptance Date
S. D. Spencer & Son No. 8003	Garden Valley Rd.-Fairgrounds Intchge. Douglas Co.	July 30, 1980
Hamilton Electric, Inc. No. 8966	Columbia River Hwy. @ Umatilla Br. Spur (Umatilla) Umatilla Co.	August 4, 1980
S. D. Spencer & Son No. 8501	Cottage Grove-Martin Creek Lane Co.	August 6, 1980
Tawn Mar Constr. Co. No. 9064	Drews Reservoir Lake Co.	August 6, 1980
W. R. Grasle Co. No. 9069	Scholls Hwy. @ SW 121st Ave. (Tigard) Washington Co.	August 6, 1980

August 6, 1980

C. T. Keasey
Asst. State Highway Engineer

8957

July 23, 1980

The Travelers Indemnity Company
Surety Department
707 S.W. Washington Street
Portland, OR 97205

CCM 5
Contract #8957

Gentlemen:

Contract No. 8957 awarded to Cascade Construction Company, Inc. for work on the Lowafield Road-Clackamas Highway Section of FAU 9659 in Clackamas County was completed on May 23, 1980, and accepted by the State Highway Division on July 18, 1980.

Final payment in the amount of $4,074.99 will be released to the contractor after July 28, 1980. The total contract amount is $409,866.98, including $5,094.21 for work performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

Robert W. Gordon
Contracts Manager

dms

cc: Cascade Construction Company, Inc.
P. O. Box 4267
Portland, OR 97208

Bauer, Morse & Hunter, Inc.
[illegible] Building
Portland, OR 97201

bc: G. T. Keeney
Walt Hart
V. E. Skoog Attn: Dick Hacek
E. L. Hardt

FORM 01-754-0604

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Lawnfield Rd. - Clackamas Hwy.		WEEK ENDING: 7 June 1980
		SECTION PREFIX: 303-1009
HIGHWAY: PAU 9653 (82nd Drive)		COUNTY: Clackamas
NAME OF JOB: Lawnfield Rd.-Clackamas Hwy.	KIND OF WORK: Grading, Paving, and Signing	
CONTRACTOR: Cascade Construction Co.	CONTRACT NUMBER: 8957	FEDERAL AID PROJECT NUMBER: IX-9653(3)
DATE OF CONTRACT: 12 June 1979	DATE WORK STARTED: 27 August 1979	ESTIMATED COMPLETION DATE: 4 April 1980
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN 0 SUPERVISION 0	SPECIFIED WORK DAYS / SPECIFIED CALENDAR DAYS 250 CWD	WORK DAYS USED / CALENDAR DAYS USED 173
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 70
PROJECT AUTHORIZATION: $515,111.81	ENGINEERING AUTHORIZATION: $40,845.87	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
INCLUSIVE OF ENGINEERING: $474,265.94	ENGINEERING COST TO DATE: $41,600.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $482,516.50	PERCENT OF AUTHORIZATION: 102 %	DATE PROJECT WAS COMPLETED: 4 April 1980
ESTIMATED PERCENT OVERRUN / UNDERRUN: 1.4 %		

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE	MAT'L. PROD		
			GRADING	SURFACING	Concrete Walks	Concrete Curbs	PAVING
MILES IN PROJECT							
MILES PARTIALLY COMPLETED							
MILES COMPLETED							
TOTAL ESTIMATED QUANTITIES (CONTRACT)			2,930 CY	3,220 Ton	2,340 SY	5,500 LF	6,910 Ton
TOTAL QUANTITIES CORRECTED TO DATE			969	3,050	1,703	5,120	5,018
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE			969	3,050	1,703	5,120	5,018
AVERAGE DAILY QUANTITIES							
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME							
NUMBER OF SHIFTS PER DAY							
HOURS PER SHIFT EQUIPMENT USED DURING THE WEEK.							

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.							
PERCENT							

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Rain	0		
MONDAY	Rain	0		
TUESDAY	Showers	0		
WEDNESDAY	Cloudy	0		
THURSDAY	Cloudy	0		
FRIDAY	cloudy	0		
SATURDAY		0		

Keasey
Jackmond
Hopkins
Williams
Johnsen
Glenn

RECEIVED
JUN 9 1980
CONSTRUCTION BRANCH

Richards
Berg
Inloes
Widmer
Gebauer
Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
6/1 SUNDAY	No activity
6/2 MONDAY	No activity
6/3 TUESDAY	No activity
6/4 WEDNESDAY	No activity
6/5 THURSDAY	No activity
6/6 FRIDAY	No activity
6/7 SATURDAY	No activity

REMARKS

Office work on Semi-Final.

SIGNED W.E. Hoffman Res. Engr. LOCATION Portland

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

8957

(MEMORANDUM)

FORM APPROVED BY COMPTROLLER GENERAL, U.S. MAY 12, 1966

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

STATE VOUCHER NO.

FHWA VOUCHER NO.

VOUCHER FOR WORK PERFORMED UNDER PROVISIONS OF THE FEDERAL AID AND FEDERAL HIGHWAY ACTS, AS AMENDED

2-19-80

APPROPRIATION

FHWA SCHEDULE NO.

THE UNITED STATES, DR., TO *(Insert official or depositary named in project agreement)*

Treasurer of the State of Oregon

ADDRESS

Capitol Building
Salem, Oregon 97310

PAID BY

(For use of Paying Office)

STATE

Oregon

VOUCHER TYPE *(Check Appropriate Block)*

☐ CURRENT BILLING

VOUCHER PERIOD — FROM 3-17-77 — TO 5-9-79

☐ OTHER PROGRESS

☒ FINAL VOUCHER (*)

FEDERAL AID PROJECT NO. M-0653(1)

(*) Use Form FHWA-1447 for Final Voucher for a project constructed under certification acceptance or secondary road procedures (23 U.S.C. 117).

TOTAL ACTUAL COST	TOTAL PARTICIPATING COST	PRO-RATA OF PARTICIPATING COST CLAIMED FROM U.S.	TOTAL AMOUNT CLAIMED FROM U.S.	LESS PREVIOUS PAYMENTS	NET AMOUNT CLAIMED
$46,124.00	$45,061.64	85.85	$38,680.05	$38,680.05	$ 0.00

RECEIVED DIVISION OFFICE — BY — DATE

DIVISION OFFICE REVIEW MADE — BY — DATE 2/29/80

PASSED FOR PAYMENT — BY — DATE M.E. Skaar

REMARKS

PE 303-1938

$ 0.00

FORM PR 20A
(Rev. 5-79)

PREVIOUS EDITIONS ARE OBSOLETE

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS (Payee must not use this column)
	Lawnfield Rd.-Clackamas Highway Section County Road in Clackamas County					
	Preliminary Engineering Type Code P.E.					
	State	All Required			$42,495.89	
	Clackamas County	All Required			2,585.75	
	Total Participating Costs				$45,081.64	
	Nonparticipating Items					
	Preliminary Engineering	All Required			$ 102.36	
	Total Nonparticipating Costs				$ 102.36	
	TOTAL COSTS				$45,184.00	
	Prepared based on Participating costs shown on Federal Billing as of 2/21/80.					

AMOUNT CARRIED FORWARD

(MEMORANDUM) 303-1007

FORM APPROVED BY COMPTROLLER GENERAL, U.S. MAY 12, 1966

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

VOUCHER FOR WORK PERFORMED UNDER PROVISIONS OF THE FEDERAL AID AND FEDERAL HIGHWAY ACTS, AS AMENDED

	STATE VOUCHER NO.
	FHWA VOUCHER NO.
APPROPRIATION	FHWA SCHEDULE NO.
THE UNITED STATES, DR., TO *(Insert official or depositary named in project agreement)* Treasurer of the State of Oregon	PAID BY
ADDRESS Capitol Bldg. Salem, OR 97310	*(For use of Paying Office)*

STATE Oregon		VOUCHER TYPE *(Check Appropriate Block)* ☐ CURRENT BILLING	
VOUCHER PERIOD	FROM 5/16/79	☐ OTHER PROGRESS	FEDERAL AID PROJECT NO. IX-0553(3)
	TO 4/10/81	☒ FINAL VOUCHER (*)	

(*) Use Form FHWA-1447 for Final Voucher for a project constructed under certification acceptance or secondary road procedures (23 U.S.C. 117).

TOTAL ACTUAL COST	TOTAL PARTICIPATING COST	PRO-RATA OF PARTICIPATING COST CLAIMED FROM U.S.	TOTAL AMOUNT CLAIMED FROM U.S.	LESS PREVIOUS PAYMENTS	NET AMOUNT CLAIMED
$468,404.53	$462,910.93	86.00%	$393,474.29	$393,474.29	$ 0.00

RECEIVED DIVISION OFFICE BY DATE	DIVISION OFFICE REVIEW MADE BY 12/17/81	PASSED FOR PAYMENT W.K. Skoog, Fenderaller

REMARKS

$ 0.00

FORM PR-20A
(Rev. 5-78)

PREVIOUS EDITIONS ARE OBSOLETE

STATEMENT OF COSTS INCURRED UNDER PROJECT AGREEMENT

ITEM NO.	ITEM	QUANTITY	UNIT	UNIT PRICE	AMOUNT	NOTATIONS (Payee must not use this column)
	Lawnfield Road-Clackamas Highway Section					
	FAU 9653 (S.E. 82nd Dr.)					
	Construction					
	Type C-ode 620]					
	Roadway (Sta. 227+90 To Sta. 262+30)					
	Formal Contract Payment Summary		Lump Sum		$409,116.98	
SFO #1	Temporary & Permanent Striping (State)		All Required		2,283.86	
SFO #4	Paint Curbs in No-Parking Zone (Clackamas Co.)		All Required		670.88	
	Total Participating Construction				$412,070.72	
	Construction Engineering					
	State		All Required		50,640.82	
	Misc. Project Cost					
	Audit Expense (SFO #4)		All Required		80.24	
	EEO Monitoring Expense		All Required		119.15	
	Total Misc. Project Expense				$ 199.39	
	Total Participating Cost				$462,910.93	
	Nonparticipating Cost					
	Formal Contract Payment		Lump Sum		$ 750.00	
	Interest on Formal Payment		All Required		57.05	
	Audit Expense (SFO #3)		All Required		162.97	
	Construction Engineering (State)		All Required		161.68	
SFO #3	Inspect Construction (Clackamas Co.)		All Required		1,361.90	
	Total Nonparticipating Cost				$ 2,493.60	
	Total Project Cost				$465,404.53	
	Prepared based on Participating Costs as shown on Federal Billing as of 12/3/81.					

AMOUNT CARRIED FORWARD

											1,268.82	78	81
	303	1005	900	02	P	1			42.24		42.24	81	81
	303	1005	900	03	P	1			1.25		1.25	81	81
	303	1005	944	00	P	1			99.05		1,651.29		
			TOT	P1				2.64	.76		.76		
			TOT	N1									
			** JOB TOTALS **					2.64 **	99.81 **		1,652.05 **		

												STATE	
LWNFLD RD-CLACK HWY-SE 92ND	CONT NO 8957 * FA PROJ NOS XI		653003 100								409,116.98	79	81
	303	1009	201	00	P	1	Pay Cont.		750.00CR		750.00	81	81
	303	1009	201	00	N	1	"		750.00		57.05	80	80
	303	1009	206	00	N	1	Interest				8.64CR	80	80
	303	1009	208	00	N	1	Cr. Ret. Adm. costs				2,283.36	80	80
	303	1009	270	01	P	1	SFO#1				670.38	80	81
	303	1009	270	04	P	1	SFO#4				419,574.29CR	79	82
	303	1009	296	00	N	9	Tr. St.		776.03				

FEBRUARY 1982 PAGE 168

TOTAL TO DATE JOB COST SUMMARY

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION		GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE YRS BEG	ACTIVE YRS END
									26,100.00	79	79
	303	1009	297	00	N	9	Tr. Co.	776.03CR	393,474.29	79	82
	303	1009	298	00	N	9	" Fed.		50,469.02	79	80
	303	1009	900	00	P	1	Const. Engr.		59.10	80	80
	303	1009	900	00	N	1	"		1,361.90	81	81
	303	1009	900	03	N	1	SFO#3 const. Engr. by Co.		80.24	81	81
	303	1009	915	00	P	1	Audit	80.24		81	81
	303	1009	915	03	P	1	"	243.21CR	162.97	81	81
	303	1009	915	03	N	1	"	162.97		79	79
	303	1009	920	00	P	1	Proj. Mgmt.		80.72	80	80
	303	1009	928	00	N	1	Acct Sect		8.64	81	81
	303	1009	945	00	P	1	Const. Sec.		11.94	81	82
	303	1009	948	00	N	1	Const Engr.	39.59	39.59	80	80
	303	1009	950	00	P	1	Training		79.14	80	80
	303	1009	960	00	N	1	Personel Leave		96.12	79	80
	303	1009	985	00	P	1	EEO Monitoring		119.15		
			TOT	P1				912.97CR	462,910.93		
			TOT	N1				952.56	2,526.73		
			** JOB TOTALS **				**	39.59 **	465,437.66 **		

												STATE	
SE 132ND-SE 142ND-SNYSDE RD	CONT NO 9072 * FA PROJ NOS XI		718004 100								174,894.19	80	81
	303	1012	201	00	P	1					355.11	80	80
	303	1012	201	00	N	1			892.02			81	81
	303	1012	205	04	P	1					225.02	81	81
	303	1012	206	00	N	1					228.72	81	81
	303	1012	220	03	P	1					8,238.18	81	81
	303	1012	260	04	P	1			300.90		300.90	82	82
	303	1012	270	01	P	1		300.90	244.05CR			80	82
	303	1012	270	02	P	1		244.05CR	56.85CR			81	82
	303	1012	270	02	N	1		56.85CR	2,620.08CR		195,016.11CR	80	82
								788.01					

	303	1005	900	02	P	1				1,288.82		78	81
	303	1005	900	03	P	1			42.24	42.24		81	81
	303	1005	944	00	P	1			1.25	1.25		81	81
			TOT		P	1		2.64	99.05	1,651.29			
			TOT		N	1			.76	.76			
			** JOB TOTALS **					2.64 **	99.81 **	1,652.05 **			
LWNFLD RD-CLACK HWY-SE 92ND	CONT NO 8957 * FA PROJ NOS XI 653003 100										STATE		
	303	1009	201	00	P	1	Pay Cont.		750.00CR	409,116.98		79	81
	303	1009	201	00	N	1	" "		750.00	750.00		81	81
	303	1009	206	00	N	1	Interest			57.05		80	80
	303	1009	208	00	N	1	Cr. Ret. Adm. costs			8.64CR		80	80
	303	1009	270	01	P	1	SFO#1			2,283.36		80	80
	303	1009	270	04	P	1	SFO#4			670.38		80	81
	303	1009	296	00	N	9	Tr. St.		776.03	419,574.29CR		79	82

TOTAL TO DATE JOB COST SUMMARY — FEBRUARY 1982 — PAGE 168

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION		GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE YRS BEG	ACTIVE YRS END
	303	1009	297	00	N	9	Tr. Co.		26,100.00	79	79
	303	1009	298	00	N	9	" Fed.	776.03CR	393,474.29	79	82
	303	1009	900	00	P	1	Const. Engr.		50,469.02	79	80
	303	1009	900	00	N	1	"		59.10	80	80
	303	1009	900	03	N	1	SFO#3 const. Engr. by Co.		1,361.90	81	81
	303	1009	915	00	P	1	Audit	80.24	80.24	81	81
	303	1009	915	03	P	1	"	243.21CR		81	81
	303	1009	915	03	N	1	"	162.97	162.97	81	81
	303	1009	920	00	P	1	Proj. Mgmt.		80.72	79	79
	303	1009	928	00	N	1	Acct. Sect.		8.64	80	80
	303	1009	945	00	P	1	Const. Sec.		11.94	81	81
	303	1009	948	00	N	1	Const. Engr.	39.59	39.59	81	82
	303	1009	950	00	P	1	Training		79.14	80	80
	303	1009	960	00	N	1	Personel Leave		96.12	80	80
	303	1009	985	00	P	1	EEO Monitoring		119.15	79	80
			TOT		P	1		912.97CR	462,910.93		
			TOT		N	1		952.56	2,526.73		
			** JOB TOTALS **				**	39.59 **	465,437.66 **		
SE 132ND-SE 142ND-SNYSDE RD	CONT NO 9072 * FA PROJ NOS XI 718004 100									STATE	
	303	1012	201	00	P	1			174,894.19	80	81
	303	1012	201	00	N	1			355.11	80	80
	303	1012	205	04	P	1		892.02		81	81
	303	1012	206	00	N	1			225.02	81	81
	303	1012	220	03	P	1			288.72	81	81
	303	1012	260	04	P	1			8,238.18	81	81
	303	1012	270	01	P	1		300.90	300.90	82	82
	303	1012	270	02	P	1		244.05CR	244.05CR	80	82
	303	1012	270	02	N	1		56.85CR	56.85CR	81	82
	303	1012	270	04	N	9		388.01	2,439.08	195,016.11CR	80

				TOT	P1		4.87		99.05		76		7	
				TOT	N1									
				** JOB TOTALS **			2.64	**	99.81	**	1,652.05	**		
													STATE	
LWNFLD RD-CLACK HWY-SE 92ND	CONT NO 8957 * FA PROJ NOS XI 653003 100								750.00CR		409,116.98		79	81
	303	1009	201	00	P	1 Pay Cont.			750.00		750.00		81	81
	303	1009	201	00	N	1 " "					57.05		80	80
	303	1009	206	00	N	1 Interest					8.64CR		80	80
	303	1009	208	00	N	1 Cr. Ret. Adm. costs					2,283.36		80	80
	303	1009	270	01	P	1 SFO*1					670.38		80	81
	303	1009	270	04	P	1 SFO*4			776.03		419,574.29CR		79	82
	303	1009	296	00	N	9 Tr. St.								

TOTAL TO DATE JOB COST SUMMARY

FEBRUARY 1982 PAGE 168

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION	GR		CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	ACTIVE YRS BEG	ACTIVE YRS END
								26,100.00	79	79
	303	1009	297	00	N 9	Tr. Co.	776.03CR	393,474.29	79	82
	303	1009	298	00	P 1	Fed.		50,469.02	79	80
	303	1009	900	00	P 1	Const. Engr.		56.10	80	80
	303	1009	900	00	N 1	"		1,361.90	81	81
	303	1009	900	03	N 1	SFO*3 const. Engr. by Co.		80.24	81	81
	303	1009	910	00	P 1	Audit	80.24		81	81
	303	1009	915	03	P 1	"	243.21CR		81	81
	303	1009	915	03	N 1	"	162.97	162.97	79	79
	303	1009	920	00	P 1	Proj. Mgmt.		80.72	80	80
	303	1009	928	00	N 1	Acct Sect.		8.64	81	81
	303	1009	945	00	P 1	Const. Sec.		11.94	81	82
	303	1009	948	00	N 1	Const Engr.	39.59	39.59	80	80
	303	1009	950	00	P 1	Training		79.14	80	80
	303	1009	960	00	N 1	Personel Leave		96.12	79	80
	303	1009	985	00	P 1	EEO Monitoring		119.15		
			TOT	P1			912.97CR	462,910.93		
			TOT	N1			952.56	2,526.73		
			** JOB TOTALS **			**	39.59 **	465,437.66 **		
										STATE
SE 132ND-SE 142ND-SNYSDE RD	CONT NO 9072 * FA PROJ NOS XI 718004 100							174,894.19	80	81
	303	1012	201	00	P 1			366.11	80	80
	303	1012	201	00	N 1		892.02		81	81
	303	1012	205	04	P 1			226.02	81	81
	303	1012	206	00	N 1			228.72	81	81
	303	1012	220	03	P 1			8,238.18	81	81
	303	1012	260	04	P 1		300.90	300.90	82	82
	303	1012	270	01	P 1		244.05CR		80	82
	303	1012	270	02	P 1		56.85CR		81	82
	303	1012	270	02	N 1				80	82
							388.01	2,630.08CR	195,016.11CR	

** 303 TOTALS ** ** ** 122.45 **

0016490000063081 CONT NO FA PROJ NOS M 653001 100 STATE
303 1938 296 00 N 9 Tr. St. 39,530.05CR * BP

TO DATE JOB COST SUMMARY JUNE 1981 PAGE 770 DTAL

PTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION	GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE	DESCR
	303	1938	287	00 N 9	Tr. Co		850.00	
	303	1938	298	00 N 9	" Fed		38,680.05	
	303	1938	901	00 P 1	Res. Engr		24,520.77	
	303	1938	901	00 (N) 1	"		113.39	
	303	1938	903	00 P 1	Pay Co.		2,586.75	
	303	1938	905	00 P 1	Fin. Des.		9,957.44	SP
	303	1938	907	00 P 1	Pre. Des.		12.56	
	303	1938	909	00 P 1	R/W Desc.		59.12	
	303	1938	910	00 P 1	Soils & Geo.		1,171.04	
	303	1938	911	00 P 1	Signing		330.62	
	303	1938	913	00 P 1	R/W Liaison		46.30	
	303	1938	914	00 P 1	Ut. "		753.15	
	303	1938	915	00 (N) 1	Audit		32.60	
	303	1938	918	00 P 1	Recon & Hydrology		137.97	
	303	1938	920	00 P 1	Proj. Mgmt.		96.85	
	303	1938	921	00 P 1	Specs.		1,149.01	
	303	1938	922	00 P 1	Adm. Ser.		43.71	
	303	1938	923	00 P 1	Env. Sec.		4,047.45	
	303	1938	980	00 P 1	Public Hearing		169.90	
			TOT	P1			45,081.64	
			TOT	N1			145.99	
			** JOB TOTALS **			**	45,227.63 **	

0016490000063081 CONT NO FA PROJ NOS HHS0674001 100 STATE
303 1945 296 00 N 9 82.07CR
303 1945 297 00 N 9 8.21
303 1945 298 00 N 9 73.86
303 1945 905 00 P 1 82.07
TOT P1 82.07
** JOB TOTALS ** ** ** 82.07 **

0016490000063081 CONT NO FA PROJ NOS HHS0674002 100 STATE
303 1952 296 00 N 9 101.31CR
303 1952 297 00 N 9 12.61
303 1952 298 00 N 9 88.70
303 1952 901 00 N 1 2.76
303 1952 905 00 P 1 85.15
303 1952 920 00 P 1 13.40
TOT P1 98.55

0016490000063081 CONT NO 303 1938 FA PROJ NOS M 653001 100 296 00 N 9 Tr. St. 39,630.05CR STATE

TO DATE JOB COST SUMMARY JUNE 1981 PAGE 770

PTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION		GR	CURRENT MONTH	FISCAL YEAR TO DATE	GRAND TOTAL TO DATE
	303	1938	297	00	N 9	Tr. Co		850.00
	303	1938	298	00	N 9	" Fed		38,680.05
	303	1938	901	00	P 1	Res. Engr		24,520.77
	303	1938	901	00	(N) 1	"		113.39
	303	1938	903	00	P 1	Pay Co.		2,585.75
	303	1938	905	00	P 1	Fin. Des.		9,957.44
	303	1938	907	00	P 1	Pre. Des.		12.56
	303	1938	909	00	P 1	R/W Desc.		59.12
	303	1938	910	00	P 1	soils & Geo.		1,171.04
	303	1938	911	00	P 1	signing		330.62
	303	1938	913	00	P 1	R/W Liaison		46.30
	303	1938	914	00	P 1	Ut. "		753.15
	303	1938	915	00	(N) 1	Audit		32.60
	303	1938	918	00	P 1	Recon & Hydrology		137.97
	303	1938	920	00	P 1	Proj. Mgmt.		96.85
	303	1938	921	00	P 1	specs.		1,149.01
	303	1938	922	00	P 1	Adm. Ser.		43.71
	303	1938	923	00	P 1	Env. Sec.		4,047.45
	303	1938	980	00	P 1	Public Hearing		169.90
			TOT	P1				45,081.64
			TOT	N1				145.99
			** JOB TOTALS **				**	45,227.63 **

0016490000063081 CONT NO 303 1945 FA PROJ NOS HHS0674001 100 296 00 N 9 82.07CR STATE

303	1945	297	00	N 9	8.21
303	1945	298	00	N 9	73.86
303	1945	905	00	P 1	82.07
		TOT	P1		82.07
		** JOB TOTALS **			82.07 **

0016490000063081 CONT NO 303 1952 FA PROJ NOS HHS0674002 100 296 00 N 9 101.31CR STATE

303	1952	297	00	N 9	12.61
303	1952	298	00	N 9	88.70
303	1952	901	00	N 1	2.76
303	1952	905	00	P 1	85.15
303	1952	920	00	P 1	13.40
		TOT	P1		99.55

8957

Clackamas Co.

ROAD DESIGN SECTION

October 16, 1979

Bill Hoffman
Resident Engineer

ORIGINAL SIGNED
DUANE O. CHRISTENSEN

Duane O. Christensen
Final Design Engineer

Subject: Sign Shop Drawings
Lawnfield Road-Clackamas Highway Section
S.E. 82nd Drive - FAU 9653
[redacted] County
Contract No. 8957

Enclosed are three sets of approved shop drawings for the Type "U" signs on the above-named project.

One set should be retained by you for field inspection purposes; one set forwarded to Don Wackerbarth's office for shop inspection of the signs; and one set sent to Coral Corporation for sign fabrication.

WGB:ja

Enc.

cc C. T. Keasey
E. L. Hardt
W. G. Beard

Versteeg
Andersen
Christensen
Olson
Sullivan
Terpin
Trout
Waterig

RECEIVED
OCT 17 1979
ROAD DESIGN SECTION

file

Do Not File ☐
Return To
Bring Up ___/___/___
Action

Coral Corporation

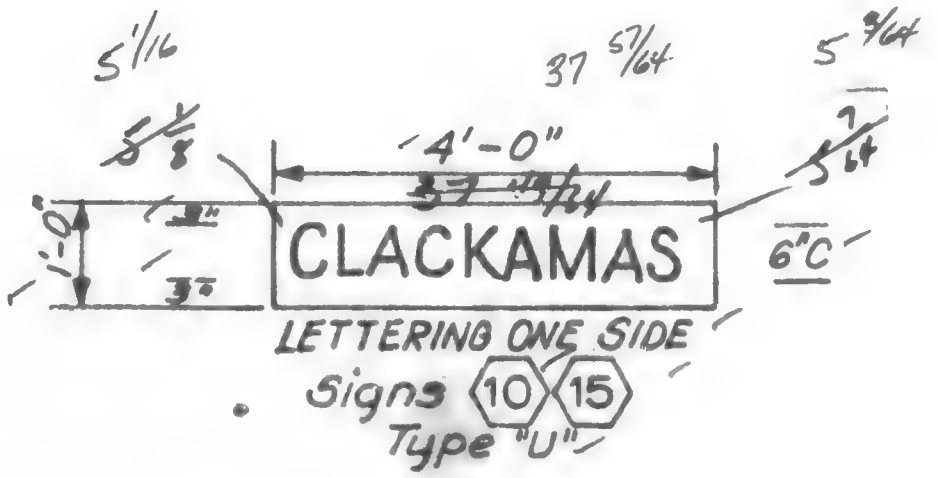
P.O. Box 258, GLADSTONE, OR 97027
135 E. HEREFORD ST., 503/655-6351

PROJECT Lawnfield Rd - Clackamas Hwy

FILE NO. 30 CONT. NO. 8957

APPROVED WITHOUT CHANGE
APPROVED AS NOTED
RETURNED FOR CORRECTION

OREGON STATE HIGHWAY DIVISION
Subject to Section 105.02 of the Standard Specifications for Highway Construction



SIGN NO.: 10 & 15 TYPE: U SQ. FT.: 8 PREPARED BY: HK DATE: 9/17/79 CHECKED BY: DATE:	PANELS: 3/4 MDO Plywood HINAC: SCOTCHLITE: Green ORDERED: RECEIVED: COATED: PULLED: PCS. @ MATCHED: PCS. @ DRILLED: PCS. @ COMPLETE:
SUPPORT: NUMBER: POST CLIPS:	
LEGEND: 3M SPACING BY: BPR BORDER WIDTH: 3/8 PCS @ PCS @ CORNER RADIUS: PCS @ ORDERED: RECEIVED: COMPLETE: ARROWS: COMPLETE: SHIELDS: COMPLETE:	WINDBEAM: ORDERED: RECEIVED: PCS. @ PULLED: PCS. @ COMPLETE:
	SHORTAGES:

Coral Corporation

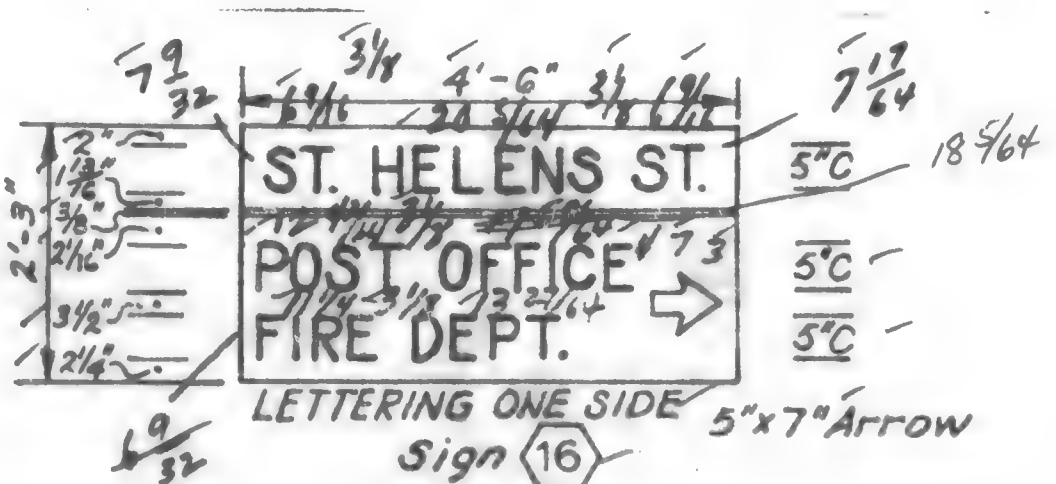
P.O. Box 258, Gladstone, OR 97027
135 E. Hereford St., 503/655-6351

PROJECT Lawnfield Rd - Clackamas Hwy
FILE NO. 30 CONT. NO. 8957

APPROVED WITHOUT CHANGE
APPROVED AS NOTED
RETURNED FOR CORRECTION

OCT 16 1979

OREGON STATE HIGHWAY DIVISION
Subject to Section 105.02 of the Standard Specifications for Highway Construction
BY WCB



SIGN NO.: 16 — TYPE: U — SQ. FT.: 10,125 PREPARED BY: bh DATE: 9/17/79 CHECKED BY: DATE:	PANELS: 3/4 MDO Plywood — HINAC: SCOTCHLITE: Green ORDERED: RECEIVED: COATED: PULLED: PCS. @ MATCHED: PCS. @ DRILLED: PCS. @ COMPLETE:
SUPPORT: NUMBER: POST CLIPS:	WINDBEAM: ORDERED: RECEIVED: PCS. @ PULLED: PCS. @ COMPLETE:
LEGEND: 3M — SPACING BY: BPR BORDER WIDTH: 3/8 — PCS @ PCS @ CORNER RADIUS: PCS @ ORDERED: RECEIVED: COMPLETE: ARROWS: COMPLETE: SHIELDS: COMPLETE:	SHORTAGES:

Coral Corporation

P.O. Box 258, GLADSTONE, OR 97027
135 E. HEREFORD ST., 503/655-6351

PROJECT Lawnfield Rd - Clackamas Hwy

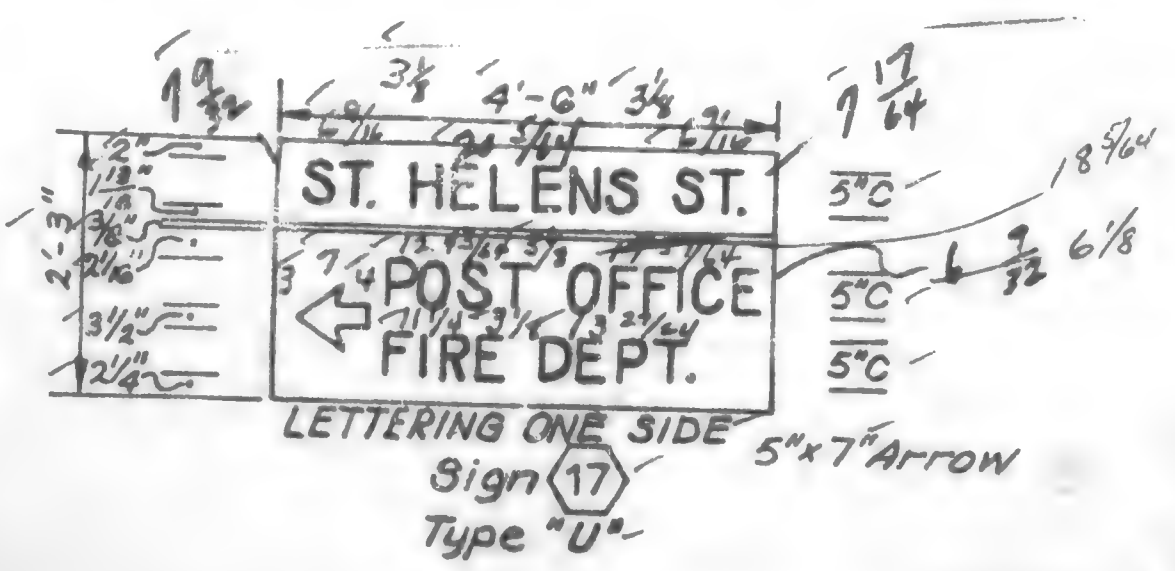
FILE NO. 30 CONT. NO. 8957

APPROVED WITHOUT CHANGE
APPROVED AS NOTED
RETURNED FOR CORRECTION

OCT 16 1979

OREGON STATE HIGHWAY DIVISION
Subject to Section 105.02 of the Standard Specifications for Highway Construction

BY



SIGN NO.: 17 TYPE: U SQ. FT.: 10.125 PREPARED BY: MG DATE: 9/17/79 CHECKED BY: DATE:	PANELS: 3/4 MDO Plywood HINAC: SCOTCHLITE: Green ORDERED: RECEIVED: COATED: PULLED: PCS. @ MATCHED: PCS. @ DRILLED: PCS. @ COMPLETE:
SUPPORT: NUMBER: POST CLIPS:	WINDBEAM: ORDERED: RECEIVED: PCS. @ PULLED: PCS. @ COMPLETE:
LEGEND: 3M SPACING BY: BPR BORDER WIDTH: 3/8 PCS @ PCS @ CORNER RADIUS: PCS @ ORDERED: RECEIVED: COMPLETE: ARROWS: COMPLETE: SHIELDS: COMPLETE:	SHORTAGES:

OREGON STATE HIGHWAY DIVISION

TO: John Irwin
Traffic Section

SUBJECT: Contract: 8957
Lawnfield Rd. - Clack. Hwy.

FROM: Wayne Schulte
Region 1

DATE: Sept 20, 1979

Attached for your review and approval are three (3) copies each of shop drawings for signs nos. 16, 17, and 10 & 15.

Wayne Schulte
(SIGNATURE)

PLEASE REPLY HERE

RECEIVED
SEP 24 1979
TRAFFIC ENGINEERING

CC: _____ _____ _____
(SIGNATURE) (DATE)

1. SENDER SHOULD DETACH SHEET NO. 4 AND HOLD UNTIL REPLY IS RECEIVED, LEAVING 1ST 2 CARBONS INTACT.
2. ADDRESSEE SHOULD REPLY, DETACHING SHEETS, RETAINING SHEET NO. 1 AND RETURNING SHEET NO. 3 TO SENDER.
3. SHEET NO. 2 MAY BE USED AS INFORMATIONAL CARBON COPY OR DESTROYED.

1

8957

STATE OF OREGON
HIGHWAY DIVISION

INTEROFFICE MEMO

TO: FILE

DATE: July 10, 1979

FROM: H. S. Coulter
State Highway Engineer

SUBJECT: Footpaths and Bicycle Trails
June 7, 1979 Bid Letting

This is an informational report to document the Highway Division's action taken with regard to establishing footpaths and bicycle trails as set forth in ORS 366.514. Bids were opened June 7 on the following projects:

1. N. 6th St. @ "A" St. (Grants Pass)
   Redwood Highway, Josephine County
   Traffic Signals

   Footpaths or bicycle trails are not incorporated in this project as no new highway construction, reconstruction or relocation is involved.

2. Lawnfield Road-Clackamas Highway
   S.E. 92nd Dr., Multnomah County
   Grading & Paving

   5-foot sidewalks will be provided for bicycle and pedestrian traffic.

3. Fox-Beech Creek Summit
   Pendleton-John Day Highway, Grant County
   Paving

   12-foot lanes with 2-foot shoulders provided.

   Footpaths and bicycle trails will not be established under this project as per ORS Chapter 366, Section 2, subsection 2(c), which states, "footpaths and trails are not required to be established . . . where sparsity of population, other available ways or other factors indicate an absence of any need for such paths and trails."

4. Lexington Bombing Range Rd. & Lexington-Pieper Canyon Rd.
   Lexington-Echo and Heppner Highways, Morrow County
   Grading & Paving

   12-foot lanes and two 4-foot shoulders provided.

   Footpaths and bicycle trails will not be established under this project as per ORS Chapter 366, Section 2, subsection 2(b), which states, "footpaths and trails are not required to be established . . . if the cost of establishing such paths and trails would be excessively disproportionate to the need or probable use."

01-125-1307

5. Castle Rock-Cedar Creek
Three Rivers Highway, Tillamook and Yamhill Counties
Paving

11-to-12-foot lanes provided.

Same as No. 4

6. Wades Point-Joseph
Wallowa Lake Highway, Wallowa County
Grading & Paving

12-foot lanes and 0-4-foot shoulders provided.

Same as No. 4

7. S.W. 117th Ave.-S.W. Hocken Ave. (Beaverton) and
N.E. Sandy Blvd.-S.E. Flavel St. (Portland)
Tualatin Valley and Cascade Highways
Washington and Multnomah Counties
10 and 12-foot lanes with 12-foot medians

Same as No. 4

8. Heisler St.-Court Street (Dufur)
N. 4th Street, Wasco County
Grading and Paving

5-foot sidewalk on left; 5-foot shoulder on right provided for bicycle and pedestrian traffic

RS:ge

cc F. B. Klaboe
E. S. Hunter
D. G. Talbot
L. E. George
F. E. Terpin
George Bell
Don Harwell

8957

June 8, 1979

Clackamas County
Public Works Department
902 Abernathy Road
Oregon City, Oregon 97045

Attn: John C. McIntyre
Director of Environmental Services

Gentlemen:

On June 7, 1979 a satisfactory bid was received from Cascade Construction Co., Inc., P.O. Box 4267, Portland, Oregon 97208 for construction of Lewisfield Road-Clackamas Highway Section, FAE 9653. The advance deposit based on the anticipated construction cost of their bid is as follows:

Bid Items	$449,093.00
Permanent Pavement Striping	$ 1,700.00
Temporary Pavement Striping	500.00
Furnish Mail Box Posts (5 @ $50)	250.00
Roadside Seeding & Mulching	500.00
Adjust Detector Loops (EF)	1,000.00
4 1/2% Contingencies	20,422.94
9% Engineering	40,845.87
ESTIMATED TOTAL COST	$515,111.81

County's Advance Deposit:
6% of $515,111.81 = $30,906.71 or say $30,900.00

This project will be awarded upon receipt of your advance deposit which should be in this office no later than June 29, 1979.

Please make your check for $30,900.00, payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

ORIGINAL SIGNED BY
D. E. SWAN

D. E. Swan
Federal Aid Engineer

6-27-79
Check will be
ind. mail today

FH:pf

bcc w/AD #646: Jon Rose, Federal Aid Specialist
Vern Skoog - Please return completed AD #646 when check is received.

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

8959 LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
IX-9653(3)

STATE PROJECT NO.
See below

FROM:
G. L. Green, Division Administrator
FHWA - Oregon Division
Salem, Oregon

PROGRAM NO.

ITEM NO.
71418

COUNTY NAME
Clackamas

PROGRAM STAGE (Check)
☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
MAY 17 '79
REFER TO
FOR
Smith | Jones | R/D | D/R | Bern | Act | File

5-17 ones to (

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
5-16-79	5-16-79	FAU 9653	County Road

GENERAL LOCATION:
Lawnfield Road - Clackamas Highway Section.

GENERAL DESCRIPTION OF WORK:
Grade, Drain and Pave

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY

☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN PREPARATION

☐ ACQUISITION OF RIGHT-OF-WAY

☐ CONSTRUCTION - ADVERTISE FOR RECEIPT OF BIDS

☒ OTHER (Specify)
Permanent Pavement Striping (SF) $1,700
Temporary Pavement Striping (SF) 500

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS
After concurrence in award you are authorized to proceed with those items listed above as shown in your Estimate.

Mr. Swan's 5-14-79 request and certifying statements are accepted.

PS&E documents for the subject project have been reviewed and are approved at a total estimated cost of $546,791 with Federal funds limited to $458,000.

A signed copy of the Title Sheet is returned herewith.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
5-16-79	G. K. Hassner	for Division Administrator

FORM PR-1240 (REV. 3-79) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1979—721-012

8957

OREGON STATE HIGHWAY DIV
117 DOT Building
Salem, Oregon 97310

5-3-79

17

703

Attention: Right-of-Way Section

Subject: Federal Aid Project No. M-9653 (1)
Project Name Lawn Field Rd.-Clackamas Highway

Regarding the above referred to federal aid project, we hereby certify that to the best of our knowledge and belief:

A. Existing Right-of-Way

☐ 1. All construction can be accomplished completely within the existing right-of-way. This existing right-of-way was acquired prior to January 2, 1971.

B. New Right-of-Way

☒ 1. This project required additional right-of-way purchased after January 2, 1971. Right-of-way, easements, or rights-of-entry required for this project have been secured in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, and all incidental charges related to the transfer of property has been or will be paid by the city in accordance with said Act.

☒ a. There has been no displacement of persons from residences, farms or businesses.

OR

☐ b. There has been displacement of persons from either residences, farms or businesses and in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, displaced persons, businesses, or farm operations have been provided relocation payments, if eligible, and relocation assistance. Displaced individuals or families have been relocated to decent, safe and sanitary housing or have been offered decent, safe, sanitary and fair housing immediately available on the open market.

C. Utilities

☒ 1. The occupancy and/or adjustment of existing utilities within the right-of-way of the above referred to federal aid project have been authorized by permit, franchise, or other approved procedure.

Signed at Oregon City, Oregon, this 3rd day of ~~April~~ May, 1979

County of Clackamas

~~County Judge~~/Chairman

Commissioner

Commissioner

CC: C.T. KEASEY
D.E. SWAN
R. TRYGSTAD

Certified By:

Regional Right-of-Way Supervisor
Date 5-3-79

RECEIVED
MAY 4 1979
RELOCATION UNIT

NOTED
ROY HORINE

Instructions: Complete A or B and C.
R/W File No. _____
Rev. 1/76

8957 9653

STATE OF OREGON

INTEROFFICE MEMO

ODOT - METRO
DEPT.

238-8226
TELEPHONE

TO: M.J. KLOTZ

DATE: April 16, 1979

FROM: T.A. SPENCE
Policy & Planning Coordinator

SUBJECT: 82nd Drive Construction

As you indicated, 82nd Drive Construction has $458,000 federal available in the TIP for construction. In my understanding that the latest estimate is $466,750. The rule for the overrun procedure at MSD indicates that this project can be administratively adjusted in terms of a minor cost overrun, such as this. By copy of this memorandum, I am asking that administrative adjustment be made to a new total of $467,000.

sb

cc: Bill Ockert
Gary Spanovich

(K)

PROJECT MANAGEMENT
PME ☐ CCE ☐
FAE ☐

Zehner

cc: Gary Zehner

Section Lawnfield Rd. - Clackamas Hwy. Programming Estimate $ _____

Highway FAU 9653 (S.E. 82nd Dr.) Project Length 0.65 mi.

County Clackamas 4-13-79 Completion Time _____

Kind of Work Grading Paving & Signing _____

Prefix 303-1938 FA Project No. _____

ESTIMATED CONSTRUCTION AUTHORIZATION

Estimated Contract Amount $ 480,105.00

Anticipated Additional Items:

Royalty Payment	✓
Building Permit Fees	✓
Slide Correction	✓
Railroad Protective Costs	✓
Other Railroad Costs	✓
Permanent Signing	✓
Permanent Pavement Striping	1700
Temporary Pavement Striping	500
Remove Pavement Striping (Exist. & Temp.)	
Temporary Erosion Control	
State Furnished	
Install Water Meter	
Furnish Water	
Laboratory Fees	
On the Job Trainees	
State Responsibility for Damages	
Signal Controller Testing	
Bikeway Signs	
Furnish Mail Box Posts	
~~Adjust Utilities~~	
Roadside Seeding & Mulching	500
~~Misc. Permit Fees~~	
Adjust Detector Loops (5 ea.)	1000

$ 3,700.00

$ 483,805.00

Contingencies (4-1/2%) 21,771.23

Engineering (9 %) 43,542.45

SUBTOTAL $ _____

Credit for _____ . . . . . _____

Estimated Net Authorization, Construction . . . . . $ 549,118.68

APPROVED

_____
Road Design Engineer

Rec 4-13-79

OK 4-16-79

4-13-79 Called Mac-
Construct I-505 (Borrow Mt Hood)
NEED - 466,750
AUTHORIZED 458,000
(MSD AUTH. 467,000 4-13-79
SAYS MOX Klota.

OREGON STATE HIGHWAY DIVISION
SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 1 of 3
Date 3-28-79

Section Lawnfield Rd - Clackamas Hwy
County Clackamas
Kind Of Work Grading, Paving & Signing
Length .065 mi.
Name Butler
4-13-79

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Mobilization (8%)		Lump Sum	All	Lump Sum	35,600.00
	Temporary Protection and Direction of Traffic		Lump Sum	All	Lump Sum	3,410.00
	Temporary Signs		Sq. Ft.	232	6.00	1,392.00
	Temporary Barricades		Each	43	100.00	4,300.00
	Temp. Cont. Rail Traffic Barrier, Reflectorized		Lin. Ft.	225	7.50	1,687.50
	Temp. Reflectorized Pvmt Markers		Each	152	4.00	608.00
	Flagmen ROADWORK		Hour	1000	19.00	19,000.00
	Clearing and Grubbing		Lump Sum	All	Lump Sum	1000.00
	Removal of Structures and Obstructions		Lump Sum	All	Lump Sum	4,500.00
	General Excavation		Cu. Yd.	2,930	6.00	17,580.00
	Trench Excavation		Cu. Yd.	1,000	12.00	12,000.00
	Finishing Roadbed and Slopes		Lump Sum	All	Lump Sum	5,000.00
	Watering		M-Gal.	75	10.00	750.00
	1"-0 Aggregate Base		Ton	3,220	8.50	27,370.00
	Class "B" Asphalt Concrete Mixture		Ton	6,910	18.00	124,380.00
	Asphalt Cement in Mixture		Ton	450	105.00	47,250.00
	Asphalt in Tack Coat		Ton	4	250.00	1,000.00

OREGON STATE HIGHWAY DIVISION — Sheet 2 of 3

SUMMARY--BID SCHEDULE--COST ESTIMATE — Date 3-28-79

Section Lawnfield Rd - Clackamas Hwy — County Clackamas

Kind Of Work Grading, Paving & Signing — Length 0.65 mi. — Name Butler

No	Item	Code	Unit	Quant.	Unit Cost	Total
	8-inch Sewer Pipe		Lin.Ft.	289	9 00	2,601 00
	12-inch Sewer Pipe		Lin.Ft.	2,389	11 50	27,473 50
	15-inch Sewer Pipe		Lin.Ft.	9	25 00	225 00
	Extra for Pipe Under Pavement		Lin.Ft.	407	12 00	4,884 00
	Concrete Manholes		Each	15	1200 00	18,000 00
	Concrete Inlets, Type CG-1		Each	41	450 00	18,450 00
	Concrete Walks		Sq.Yd.	2340	14 50	33,930 00
	Concrete Driveways		Sq.Yd.	410	20 00	8,200 00
	Sidewalk Ramps		Each	6	350 00	2,100 00
	Concrete Curbs		Lin.Ft.	5500	7 75	42,625 00
	Concrete Steps		Lin.Ft.	40	10 00	400
	Extra for Asphalt Approaches		Each	17	200 00	3400
	Extra for Asphalt Slope Paving		Sq.Yd.	55	10 00	550 00
	Setting Mailbox Posts		Each	11	50 00	550
	Adjusting Inlets		Each	3	200 00	600 00

OREGON STATE HIGHWAY DIVISION
SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 3 of 3
Date 4-13-79

Section Lawnfield Rd.- Clackamas Hwy. County Clackamas

Kind Of Work Grading, Paving & Signing Length .65 mi. Name Butler

No	Item	Code	Unit	Quant.	Unit Cost	Total
	SIGNING					
	Removal of Existing Sign Installations		Lump Sum	All	Lump Sum	1,000.00
	Wood Sign Posts		Lump Sum	All	Lump Sum	2,400.00
	Sign Support Footings		Lump Sum	All	Lump Sum	660.00
	Offset Single Sign Supports		Lump Sum	All	Lump Sum	2,213.00
	Type "C" Signs in Place		Sq. Ft.	82	9.00	738.00
	Type "T" Signs in Place		Sq. Ft.	155	10.00	1,550.00
	Type "EE" Signs in Place		Sq. Ft.	44	12.00	528.00
	Move, Modify and Reinstall Existing Signs		Lump Sum	All	Lump Sum	200.00
	Total					

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1	Title Sheet
2	Typical Sections
2A,2B	Stage Construction & Temporary Protection & Direction Of Traffic
2C,2D	Pipe Data
2E	Signing
2F	Summary
3-5 Incl.	Plan & Profile

Not Included

STATE

DEPARTMENT

STATE HI

PLANS FO

LAWNFIELD RD.-

FAU 9653

CLA

BEG

Date 4/11/79

From Metro JON ROSE

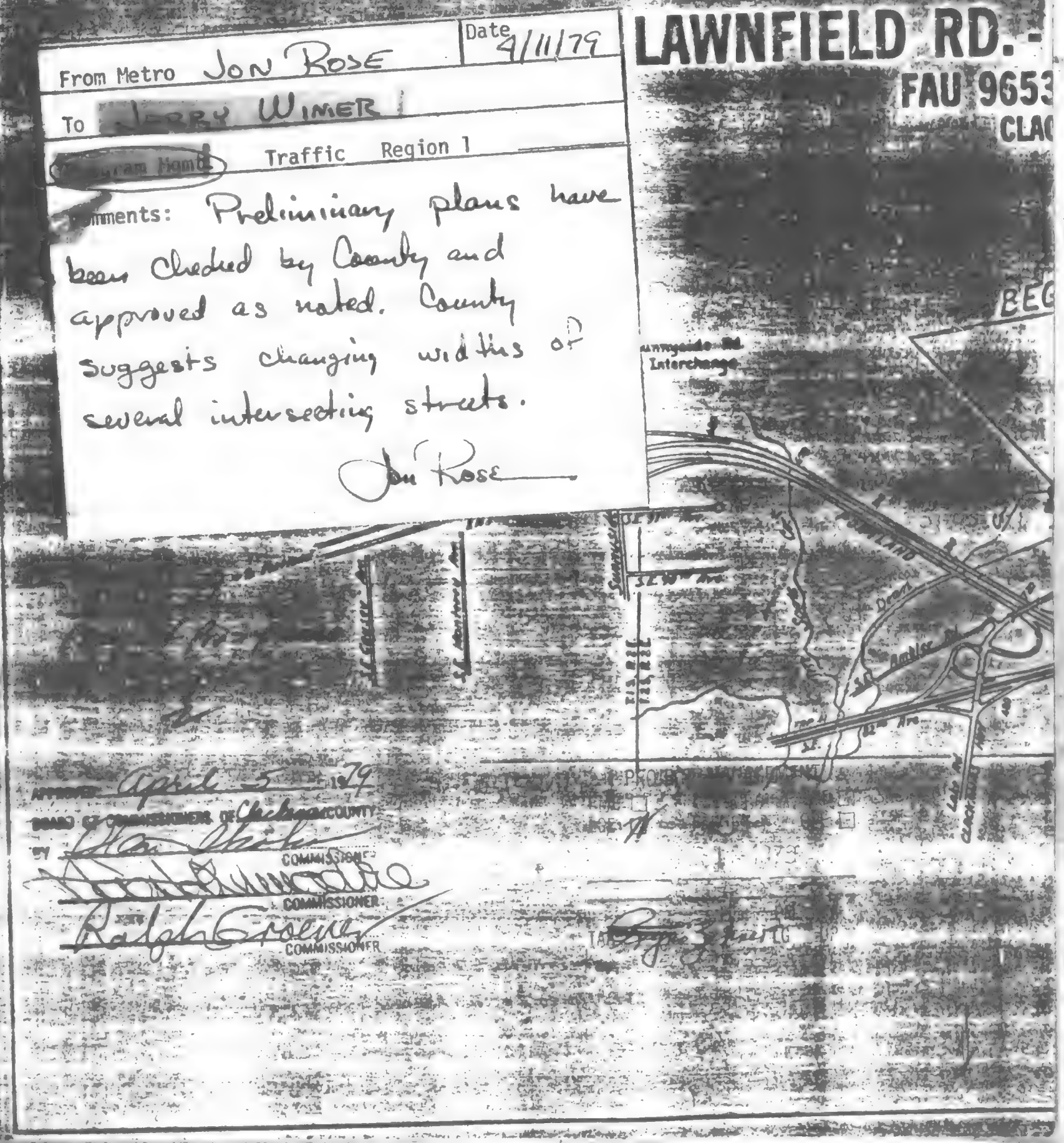
To JERRY WIMER

Traffic Region 1

Program Manager

Comments: Preliminary plans have been checked by County and approved as noted. County suggests changing widths of several intersecting streets.

Jon Rose



APPROVED April 3 1979

BOARD OF COMMISSIONERS OF Chelan COUNTY

BY

COMMISSIONER

COMMISSIONER

Ralph Erickson

COMMISSIONER

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Title Sheet
2	Typical Sections
2A,2B	Stage Construction, Temporary Protection & Direction Of Traffic
2C,2D	Pipe Data
2.	Surveying
2?	Summary
[illegible]	[illegible]

Not Included

STATE OF

DEPARTMENT OF

STATE HIG

FOR

LAWNFIELD R

SE

AT OF OREGON

T SPORTATION

I VISION

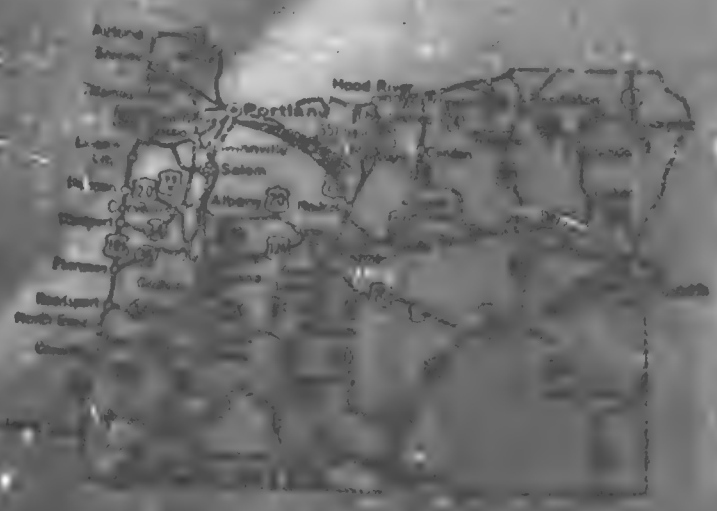
NE PROPERTY

D. CLACKAMAS CO. SEC

PRELIMINARY COPY

LAWNFIELD RD. ~ C [illegible] FAU [illegible] CLACKAMAS CO. & SEC.				SHEET No. 1
FED ROAD Div. No.	STATE	PROJECT NUMBER	FISCAL YEAR	TOTAL SHEETS See Index
10				

FAS-C
FAUS



1957

April 4, 1979

The Honorable Victor Atiyeh
Governor of Oregon
207 State Capitol
Salem, Oregon 97310

Dear Governor Atiyeh:

Substitute Transportation Projects Using Withdrawn Interstate Funds

Your letter of February 2 requested that I keep you informed as to the projects considered to use withdrawn Interstate Funds.

The following projects in the Portland urbanized area were submitted to the Federal Highway Administration during the month of March:

Project	Funds Federal	State	Local
Merle U'Xing-Cedar Hills (Sunset Hwy.-Overlays)	$2,550,000	$450,000	$ --
Progress Interchange Off-Ramp	172,000	30,400	--
Lawnfield Rd.-Clackamas Hwy.	458,000	48,540	32,360
Cedar Hills Blvd. @ Walker Rd. (Beaverton)	72,000	---	10,800
S.W. Murray Blvd.-S.W. Walker Rd. (Beaverton)	332,000	---	49,800
Tualatin Valley Hwy.-S.W. Scholls Ferry Rd., (Beaverton)	277,000	---	41,550

The criteria used to select these projects is the Region's Transportation planning process which embodies a continuing cooperative, comprehensive approach. The projects are included in the Region's Transportation Improvement Program.

There were no projects submitted for the Salem urbanized area for the month of March.

Sincerely,

GLG:dmc fn
bc H. S. Coulter
L. W. Rulien
D. H. Moehring
R. N. Bothman

F. B. Klaboe
Director of Transportation

8957

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

March 8, 1979

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM D. E. Swan
Federal Aid Manager

SUBJECT Project Data Submission
Item No. 71418
Project No. IX-9653(3)
Lawnfield Rd.-Clackamas Hwy. Section
Clackamas County

Attached is support data consisting of PR-1 forms and project maps.

It is the Oregon State Highway Division's present intention to receive bids for this project on May 24, 1979.

We request transfer of Interstate Substitution General Funds for construction of the subject project as we intend to request PS&E authorization May 2, 1979. This action will involve an estimated total cost of $538,900 with Federal funds in the amount of $458,000.

This request is based on the March 7 letter to you from Mr. F. B. Klaboe, Director of the Department of Transportation.

JLG:dmc
Attachments
cc: R. N. Bothman, Metro
Max Klotz, Metro
Jon Rose, Metro
Ed Hardt, Region 1
[redacted], w/att.

Budget Bureau No. 41-R2067;

U.S.

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO W. C.

FORM PR-1 (REV. 4-61)

March 8, 1979

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

CARD 2	REPORT NUMBER (19)(20)	PROJECT LOCATION (45 typewriter spaces) 21 Co. Rd., 1.2 mi. NE of Gladstone, N. 0.65 mi. 66	ADT	PRESENT 8,400	FUTURE 16,200 (66)(70)	YEAR 99 (71)(72)	REGION 10	STATE NAME Oregon					
CARD 3	CHARACTER OF PROPOSED WORK (35 typewriter spaces) 28 Gr., Dr., H.T. Pave 62	NATL. FOREST (63)(65)	FH ROUTE NO. (66)(68)	SUPV AGCY (69)	DA CLASSIF. (70)	DA AREA (71)	EMERG. YR. (72)(73)	PL. AUTH YR (74)(75)	PROJECT NUMBER PREFIX LETTER(S) IX- (14 28)	NUMBER 9653 (7			
CARD	CLASS OF FEDERAL FUNDS Interstate Substitutions General Funded						COUNTY NAME Clackamas						
	NAME OF URBAN AREA 17-31 Portland						ROUTE NO. U	FEDERAL-AID 9653 (32)	STATE Co. Rd.* (36)(37)	U.S. ---			

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK CLASS	WORK TYPE (43 46)	STEP (53)	TERMINI (Full description)	MILES (54)(58)	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST (59)(66)	FEDERAL FUNDS 85% (67)(76)	STATE FUNDS	OTHER FUNDS
1	(14-15)	(16)	41	42								
5					PE							
5					ROW							
5					CONST (CODE) 6201		"Lawnfield Rd.- Clackamas Hwy. Sec."	0.65	538,900	458,000	48,540 ---	32,360 ~~80,900~~ (Co.)
								0.65	538,900	458,000	48,540 ---	32,360 ~~80,900~~ (Co.)

CARD 1	CODE 1	PREPARED BY	PROJECT TOTALS
1	14	JLG	(16) (23)(24) (33)

PROGRAM APPROVAL DATES 10-27-76

REMARKS Additional Data: Item Project No. M-9653(1).

* SE 82nd Drive

Budget Bureau No. 41-R2067; Approval Expires February 28, 1966

FORM PR-1 (REV. 4-61)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

FEDERAL-AID PROGRAM DATA

(PPM 21-1)

March 8, 1979

PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
o. Rd., 1.2 mi. NE of Gladstone, N. 0.65 mi.	ADT	8,400	16,200	99	10	Oregon	41	823	71418

TYPE OF WORK (35 typewriter)	NATL. FOREST	FH ROUTE NO.	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST HI DESIG.
Pave								IX-	9653	(3)	

PROJECTS	COUNTY NAME	CODE	PROGRAM STAGE
stitutions General Funded	Clackamas	005	1 OR 2

ROUTE NO.	FEDERAL-AID	STATE	U.S.
U	9653	Co. Rd.*	---

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS 85%	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
PE								Util. adj. as req.
ROW								
CONST (CODE) 6201		"Lawnfield Rd.- Clackamas Hwy. Sec."	0.65	538,900	458,000	48,540 ---	32,360 ~~80,900~~ (Co.)	ROW-60' normal; Access Control-none; Parking Restrictions-Complete
		PROJECT TOTALS	0.65	538,900	458,000	48,540 ---	32,360 ~~80,900~~ (Co.)	

BY JLG

APPROVAL DATES 10-27-76

REMARKS Additional Data: Item No. 71418; Project No. M-9653(1).

* SE 82nd Drive

over

Lawnfield Rd.-Clackamas Hwy. Section
Project No. IX-9653(3)

Project Data: The work consists of grade, drain and high-type pave a facility as follows:

1) Sta. 227+90 to Sta. 257+60; 44-foot curbed section to accommodate two 12-foot traffic lanes, 14-foot median and 3-foot shy distance adjacent to curbs.
2) Sta. 257+60 to Sta. 262+30; 55-foot curbed section to accommodate three 12-foot traffic lanes, 14-foot median, 2-foot southbound and 3-foot northbound shy distance adjacent to curbs.

Construct as required 5-foot concrete walks each side and perform incidental work common to this type of project. Utility adjustment as required.

FHPM 7-7-2 Requirements: Final negative declaration approved by FHWA on December 15, 1978.

NOTE: 1) Included in MSD (CRAG) FY '79 TIP/AE on page 42 line 67 and MSD Resolution 79-24.
2) On-the-job trainees, as set forth in FHWA order interim 7-2(2), on this project will be determined at PS&E stage and the number stipulated in the PS&E documents.

8957

Victor Atiyah

March 7, 1979

TO: S. L. Green, Division Administrator
Federal Highway Administration

FROM: F. B. Klaboe, Director
Department of Transportation

SUBJECT: Interstate Transfer Funded Projects
Portland Urban Area

Under authority granted to me on February 2, 1979 by Governor Atiyah, I request your approval to use Interstate Transfer Funds for a highway project in the Portland urbanized area. Funds for this project are available from the withdrawal of the Mt. Hood Freeway from the Interstate Highway System under Section 103(e)(4) of Title 23, U.S.C.

I concur that this project is a regional priority and has been developed in conformance with the region's continuing, cooperative, comprehensive transportation planning process.

Funding will be as follows:

Project	Work	Funds	
		Federal	Local
Lewfield Rd.-Clackamas Hwy. Sec.	Const.	$450,000	$50,000

I have directed the Project Management Branch of the Highway Division to process this request with your office to obligate the Federal transfer funds as they are authorized by the Metropolitan Service District.

cc: Metropolitan Service District

bc: H. S. Coulter
D. H. Moehring

8957

Karlsad 1/11 '79
Salem
S.P.R.

9653

Lawnfield -Clackamas Hwy. Section
S.E. 82nd Drive
Clackamas County
Prefix: 303-1938

R. R. Cameron, Location Engineer
February, 1978

COST SUMMARY

tion	Item	Unit	Quantity	Unit Price	Amount	
10	7% Mobilization 8%	All		Lump Sum	$21,760	32 075
11	3% Temporary protection and direction of traffic	All		Lump Sum	9,325	12,025
					409,935	
11	Temporary Signs	Sq. Ft.	165	$6.50	1,073	1,073
11	Flagging	Hrs.	1,000	19 $18.00	18,000	19 000
01	Clearing and grubbing (0.5 AC)	All		Lump Sum	1,000	1,000
02	Removal of structures and obstructions	All		Lump Sum	2,500	2,500
02	Removal of sidewalks	Sq. Yds.	56	$3.00		
02	Removal of concrete curbs	Lin. Ft.	140	$.75		
02	Removal of inlets	Each	13	$100.00		
02	Removal of sewer pipe	Lin. Ft.	135	$1.75		
03	General excavation	Cu. Yds. 2900	2,595	7 $6.25	16,219	20,300
03	Ditch excavation	Cu. Yds.	25	8 $7.50	188	200
06	Trench excavation	Cu. Yds.	1,140	10 $8.00	9,120	11,400
33	Watering	M-Gals.	128	$10.00	1,280	1 280
01	Structural excavation	Cu. Yds.	12	20 $15.00	180	240
05	Plant mix aggregate base	Tons 3150	2,860	7 $5.75	16,445	22 050
03	Class "B" asphaltic conc. mixture	Tons 6200	5,843	18 $15.00	87,645	111,600
03	Asphalt cement in mixture	Tons 405	380	90 $85.00	32,300	36 450
07	Asphalt tack coat	Tons	2	$250.00	500	500
04	Class "A" conc. in retaining wall	Cu. Yds.	13	200 $150.00	1,950	2 600
05	Reinforcement in retaining wall	lbs.	700	.65 $.45	315	455

tion	Item	Unit	Quantity	Unit Price	Amount	
03	12" sewer pipe	L. F.	3,080	8 $7.25	$22,330	24,640
03	Extra for pipe under pavement	L. F.	656	10 $8.00	5,248	6,560
03	15" sewer pipe	L. F.	24	13 $9.00	216	312
04	Concrete manholes type "A"	Each	15 14	1500 $800.00	11,200	22,500
04	Type CG-1 conc. inlet	Each	38	550 $400.00	15,200	20,900
07	Chain link fence CL-4	L. F.	50	750 $6.00	300	375
08	Concrete sidewalks (17 ramps included)	Sq. Yds.	2,289	1350 $10.00	22,890	30,900
08	Concrete driveways	Sq. Yds.	310	20 $16.00	4,960	6,200
08	Concrete sidewalk ramps (exist. sidewalks)	Each	3	350 $250.00	750	1,050
08	Concrete steps	Cu. Yd.	2	250 $95.00	190	500
09	Monolithic curb and gutter type "A"	L. F.	5600 5,712	675 $5.50	31,416	37,800
10	Extra for AC approaches	Each	30	150 $125.00	3,750	4,500
10	Extra for AC street connections	Each	9	$250.00	2,250	2,250
28	Adjust storm sewer manholes	Each	12 X	250 $200.00	200	3,000
28	Adjust inlets	Each	5	$250.00	1,250	1250
	Subtotal (Perm. Signing				$341,950	5000
tra work for moving mail boxes		Each	11	$50.00	550	550
~~tra work for adjust san. sewer~~ (~~by others~~)		~~Each~~	~~11~~	~~200.00~~	~~2,200~~	
tra work for installing signal ops in pavement on the north and uth side Clackamas Highway				Lump Sum	1,000	1,000
						1,000
0 for striping by state forces				Lump Sum	1,000	
					346,700	445,035
	Subtotal				~~$343,500~~	89,000
	+20% engineering and contingencies				~~60,500~~ 69,300	
	TOTAL				~~$413,000~~ $ 416,000.	534,035

1-24-79
cc: Max Klotz for funding increase approval. 2

1-24-79 REC'D from Fred Erickson 2

8757 ○ ○ Clack

STATE OF OREGON

INTEROFFICE MEMO

Highway - Traffic DEPT. 378-6537 TELEPHONE

TO: Don Adams
Project Development Manager

DATE: February 6, 1979

FROM: L. E. George
Traffic Engineer

SUBJECT: Sign Study Plans
Lawnfield Road-Clackamas Highway Section
FAU 9653 (82nd Drive)
Clackamas County

There are attached 5 copies of our sign study plans showing proposed sign installations on the above named section.

Will you please review these plans and give us your comments and recommendations. Also will you please submit two copies to the County for its review. The County should note any suggestions for changes on one set of the plans, sign the plans in the space provided and return them to you for prompt return to this office.

May we have your reply by February 22, 1979, to enable completion of the plans for contract.

ORIGINAL SIGNED BY L. E. GEORGE

L. E. George
Traffic Engineer

Attachments
ELS:cs

cc: E. L. Hardt w/att.
M. D. Payne "
D. O. Christensen "
F. T. Lacey "

REFERRED TO
2 Board cy Steudenmeyer
Cole Semple
Bilicen I Watson
Heger Dunn Lou
Bolum Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

Verstoeg
I Christensen
George
Olson
Terpin
Sullivan
Scott
Aasurson

RECEIVED
FEB 07 1979
ENGINEERING SECTION

Trout
Do Not File ☐
Return To
Bring Up / /
Action

plan retained in sign section.

8957 1-8-79 Clack

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

~~December 28, 1978~~

FILE:

FROM: Donald E. Shaffer
Bicycle Route Engineer

SUBJECT: Lawnfield Rd-Clackamas Hwy
Section of FAU 9653 (82nd Dr.)
In Clackamas County

TO: Duane Christensen
Final Design Engineer

Fred Ericksen tells me that the typical section for the above named section is planned to include a 14-foot turning median, two 15-foot travel lanes and two 5-foot sidewalks.

The 5-foot sidewalks are great for pedestrian traffic but in order to better accommodate bicycle traffic I would like to request that the 44 feet planned between curbs be striped as a 12-foot turning median, two 12-foot travel lanes and two 4-foot shoulders.

DES:lt

REFERRED TO
Beard Stoudenmyer
Cole Sample
✓ Erikson F.E. Watson
Hager Dorn Lau
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER
Copy w/Christensen's reply sent to Terpin 1-9-79
F. Erikson

1-8-79
Fred-
44 ft curb-to-curb section to stay with 14 ft turning median and two 15 ft travel lanes. Contacted Max Klotz DOC who in turn checked with County. County does not want to change.

Verstoep
2 Christensen DOC
Georgs
Olson
Terpin
Sullivan
Scott
Anderson

RECEIVED
JAN 0 3 1979
ENGINEERING SECTION

Trout
Do Not File
Return To
Bring Up ___/___/___
Action

NOTED
E. A. ROBERTS

DOC county project?
If so they will decide
FE

8957

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. M-9653(1)

STATE PROJECT NO. See below

COUNTY NAME Clackamas

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.

TO:

Mr. F. B. Klaboe
Asst. Director for Operations, DOT
State of Oregon
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	12-15-78	FAU 9653	County Road

GENERAL LOCATION:

Lawnfield Road - Clackamas Hwy. Section

GENERAL DESCRIPTION OF WORK:

PS&E preparation

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

- ☐ PRELIMINARY ENGINEERING TO DETERMINE LOCATION ONLY
- ☐ PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
- ☒ PREPARATION including utility preparatory work
- ☐ OTHER (Specify)
- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONTRICTION - ADVERTISE FOR RECEIPT OF BIDS
- ☐ CONSTRICTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of 12-27-78, you are now authorized to proceed with PS&E preparation for the subject project effective 12-15-78, date final negative declaration was approved, for TEC of $5,000 with Federal participation limited to $4,290.

NOTED
F. B. KLABOE
Swan
1-11

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
1-4-79	G. L. Green	for Division Administrator

FORM PR-1240 (REV. 6-70)

EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

8757

The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

Oregon Project S-9653(1)
S. E. 82nd Drive from Hwy. 212
to Lennfield Road
Final Negative Declaration

December 18, 1978

EPD.2-OR

G. L. Green, Division Administrator

Mr. Gary A. Potter, Manager
Environmental Section, ODOT
Salem, Oregon

The final Negative Declaration was approved by our Assistant Division Administrator on December 15, 1978.

The original signed copy of the Title Sheet has been hand-carried to the Environmental Section for processing.

Original Signed By
E. J. VALACH
Project Development
Engineer

G. L. Green

cc:
ODOT (1 H S Coulter)
ODOT (2 S Hanover)
ODOT (3 Robinson)
ODOT (4 Dunn)

NOTED
H.S.COULTER

RECEIVED
STATE HWY ENGR
DEC 21 '78
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

8957

FINAL

NEGATIVE DECLARATION

S.E. 82ND DRIVE

FROM

HIGHWAY 212

TO

LAWNFIELD ROAD

CLACKAMAS COUNTY, OREGON

PREFACE

The content of this Final Negative Declaration is unchanged from the draft document. A public notice advertising its availability was made and a hearing was offered in the Public Notice section of the Oregonian newspaper on September 20 and September 27, 1978. No responses to the hearing offer were received nor were any comments received on the draft document. Therefore, the preferred three-lane alternative is being advanced for approval in this document. A copy of the public notice and Affidavit of Publication is contained in Appendix I.

CONTENTS

	Page
PREFACE	
LOCATION AND HISTORY	1
PURPOSE	1
DESCRIPTION	2
ALTERNATIVES	2
EXISTING ENVIRONMENT AND PROBABLE IMPACTS OF THE PROPOSAL	
Topography, Hydrology, and Water Quality	3
Vegetation and Habitat	3
Land Use and Right-of-Way	4
Population and Employment	5
Economic Impacts	6
Traffic	6
Noise	7
Air Quality	10
Material Resources and Energy	13
Cultural Resources	14
SUMMARY OF IMPACTS	14
PUBLIC PARTICIPATION	15
BASIS FOR NEGATIVE DECLARATION	16
APPENDIX I	
APPENDIX II	

LOCATION AND HISTORY OF PROJECT

The project is located in the northwest corner of Clackamas County on the segment of S.E. 82nd Drive between Lawnfield Road and Highway 212 (Figures 1A and 1B).

S.E. 82nd Drive is a southerly extension of S.E. 82nd Avenue beginning at the crossing of I-205. I-205 is a major north-south arterial connecting Clackamas County's largest industrial area with places to the north and west. I-205 is complete in the vicinity of this project; and there is no significant change anticipated in the function of 82nd Drive subsequent to the completion of I-205 across the Columbia River.

The completion of the expressway section of the Clackamas Highway (Highway 224) in 1971 shifted more traffic onto 82nd Drive. The expressway section is the only limited access connection between Highway 99E (McLoughlin Boulevard) and I-205, south of the Banfield Freeway. I-205 was connected directly to 82nd Drive as part of the interchange with 82nd Avenue and the Clackamas Highway. This connection has increased traffic on S.E. 82nd Drive, making it necessary to upgrade this facility.

PURPOSE

The purpose of this project is to upgrade the existing roadway to accommodate the pedestrian and vehicular traffic accessing the adjacent, rapidly changing commercial area and to provide through traffic capacity for trips accessing the Highway 212 industrial area from the Clackamas Expressway.

FIGURE 1A
VICINITY MAP

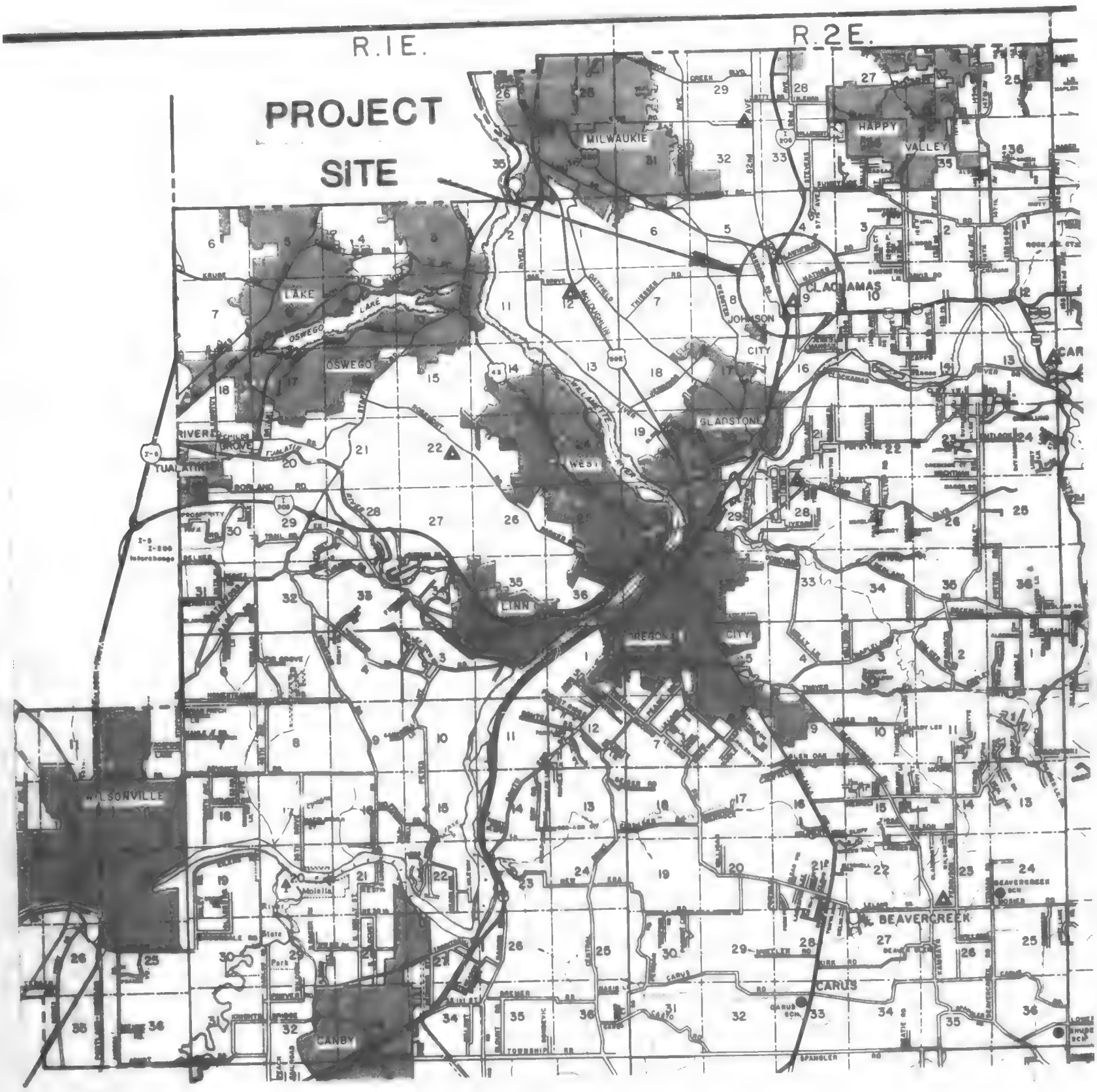
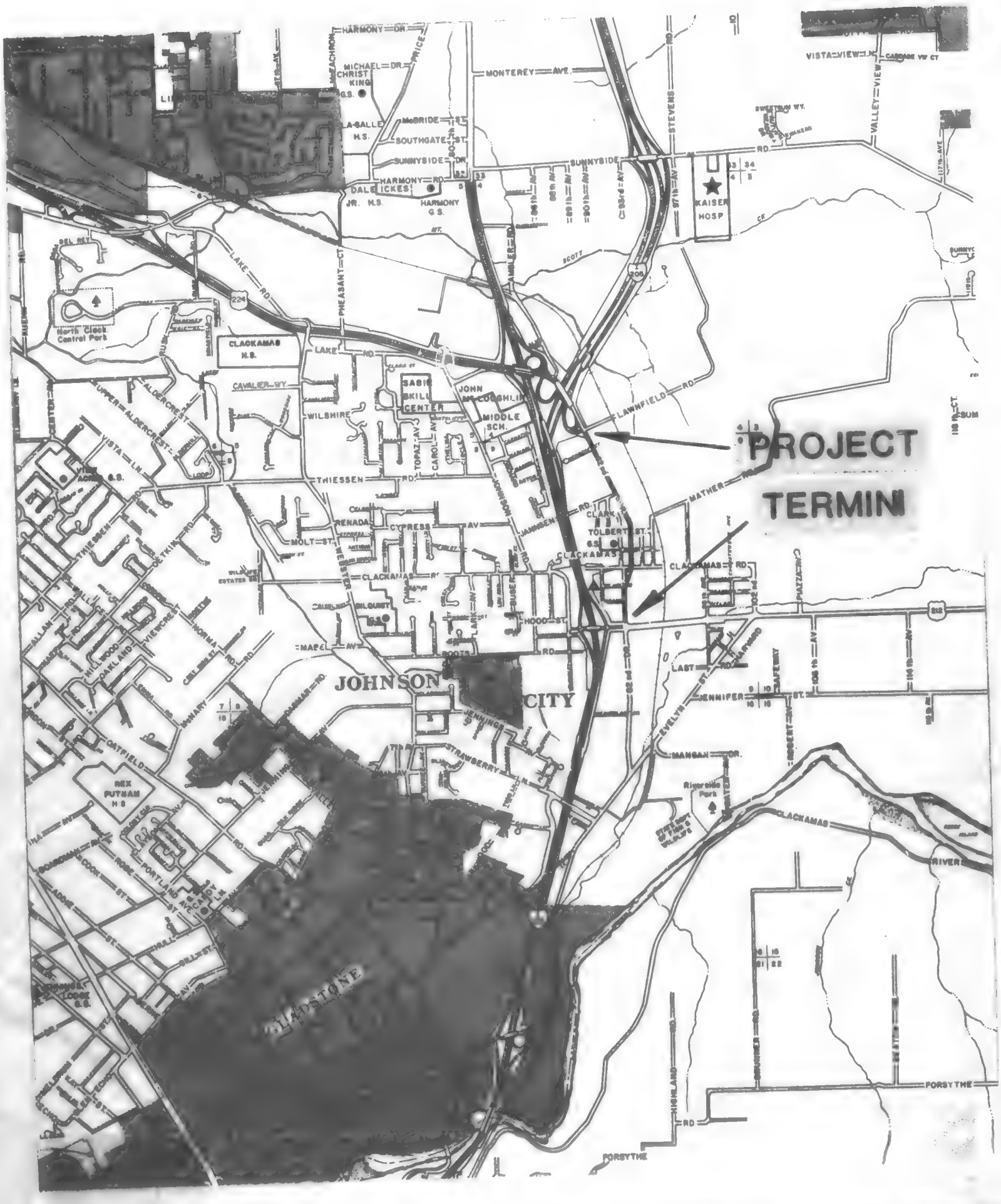


FIGURE 1B

VICINITY MAP



DESCRIPTION

The proposed project would widen S.E. 82nd Drive from the existing two lanes to a continuous left turn, three-lane roadway. The project is situated just east of I-205 and serves as a minor arterial connecting the terminus of the Expressway section of the Clackamas Highway (Hwy 224) with the large industrial area located along Highway 212. S.E. 82nd Drive serves as an important connector for this industrial/commercial area and areas north of the project. Problems associated with the weaving movements and segment loading on I-205 are avoided by accommodating traffic on this section of S.E. 82nd Drive.

The project is estimated to cost $413,000.00, and would change the existing cross section of a 24-foot roadway to 44 feet of pavement, with curbs and five-foot ramped sidewalks on both sides of the roadway. The sidewalks are essential for pedestrian/bicycle safety in the commercial area bordering the roadway. The project is 4,300 feet (0.8 mile) in length. The existing roadway has already been widened at both ends to accommodate three lanes of traffic. This project would connect these widened sections.

ALTERNATIVES

Four-Lane Alternative -- A four-lane facility is an alternative. Although this alternative would adequately handle through traffic, the resulting capacity is in excess of what traffic projections indicate is needed. Further, a wider project than the proposed three-lane alternative would require right-of-way acquisition.

No-Build -- A no-build alternative would maintain the project section as it is today. Although the existing two-lane roadway can handle the through traffic, serious queuing problems occur due to lane blockage during left turn movements, increasing the potential for accidents and congestion.

The no-build alternative does not solve pedestrian safety problems caused by the absence of sidewalks and curbs.

EXISTING ENVIRONMENT AND PROBABLE IMPACTS OF THE PROPOSAL

Topography, Hydrology, and Water Quality

The proposed project traverses a comparatively flat terrain which gently slopes to the east. This sloping is interrupted by an existing Southern Pacific Railroad grade paralleling the project. Portions of the existing roadway are served by storm drain systems which have an open outfall along the railroad grade. These storm drain systems would be modified during construction and incorporated into a continuous storm drain design. There would be a slight increase in the water yield from the project area due to the increased amount of paved surface. Although a slightly greater quantity of runoff would tend to increase the amount of roadway pollutants to reach surface water systems, the size of this project does not make this a significant adverse impact.

Vegetation and Habitat

Vegetation in the project area consists of common grasses, some shrubbery and hedges, and scattered deciduous and coniferous trees. Extensive commercial and industrial activity precludes the existence of any significant wildlife habitat in the project area. It is likely that some hedges will need to be removed to accommodate the road construction. No trees need to be removed. The project will not affect any wetlands.

Land Use and Right-of-Way

The land use setting is rapidly changing in the project area due to commercial development adjacent to the project and the industrial growth to the east along Highway 212. Development of a new business center is underway near the north end of the project on the west side of the roadway; and at the south end of the project at the intersection with Highway 212, a new convenience market has been constructed.

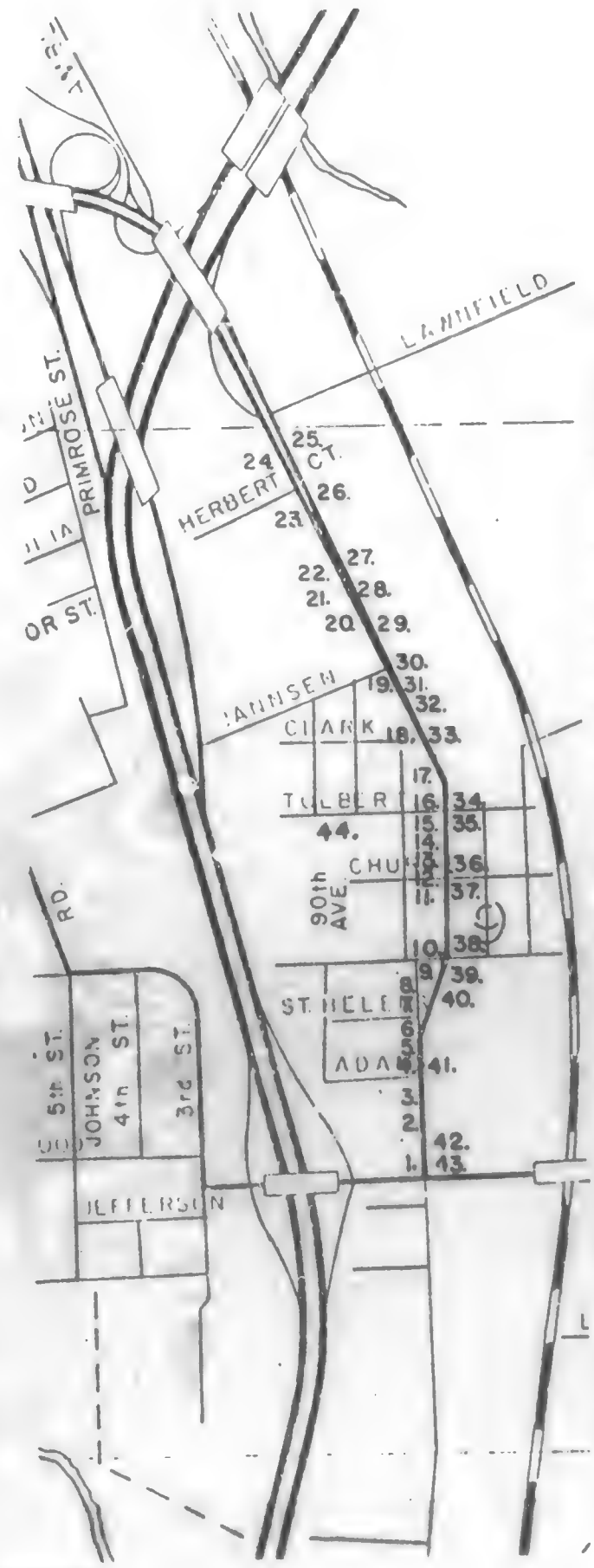
Several different land uses are encountered along the project corridor. Among the specific uses adjacent to the roadway are single family residences, cafes, auto body shops, a storage facility, an auction building, realty and insurance offices, grocery stores, home improvement businesses and a veterinary clinic (Figure 2). This area is characterized by rapid change from a single family/small business area to a commercial/industrial area. The existing single family residences adjacent to 82nd Drive are old and in various stages of deterioration.

Clackamas Elementary School lies between I-205 and S.E. 82nd Drive. The school is on the west side of S.E. 82nd Drive located approximately 270 feet from the proposed roadway centerline. Clackamas Elementary School is an older school, constructed in 1937, replacing an even older school building constructed in 1900. Its service area was impacted by I-205 and the Clackamas Expressway. This school is within North Clackamas District No. 12 and is being considered for conversion to a school supply warehouse and bus garage; however, this conversion is not expected for several years. The school operates primarily as a busing school with few walk-in students. The students are encouraged to leave the school grounds only during regular crossing hours.

FIGURE 2

ADJACENT LAND-USES

24. Milwaukie Tire Co.
23. Del-Mar Clothing
22. Sunnyside Auto Body
21. Mini-Storage
20. Clackamas Business Center
19. Ralph Alsman Auction
18. Private Residence
17. Kelly Tractors
16. Private Residence
15. Jackson Auto Parts
14. Plant Shop
13. Meeting Hall
12. Private Residence
11. Gift Shoppe
10. C&M Realty
9. Farmers Insurance & a Real Estate Office
8. Barber Shop
   Chalet Beauty Shop
   D&R C.B. Sales
   Tru-Value Hardware
7. Grocery Store
6. Insurance Co.
5. The Wood Pile Antiques
4. Clackamas Cafe
3. Veterinary Clinic
2. HI HO Restaurant
1. Standard Gas Station



25. Leatham Bro. Trucking
26. Private Residence
27. Private Residence
28. Private Residence
29. Private Residence
30. Private Residence
31. Vern's Body Shop
32. Short Shop Cafe
33. Private Residence
34. Art's Welding
35. 2 Commercial Shops
36. Milwaukie Plumbing
37. Ore.-Wash. Powder Co
38. Private Residence
39. General Furnaces & Air Conditioning
40. Valentine Carpets
41. U-Markets Grocery
42. 1st National Bank
43. Convenience Market
44. Elementary School

Surrounding the school is a small residential area. This area is not expected to be directly impacted by the project, but it would have better access from S.E. 82nd Drive if a continuous left turn lane were provided.

Existing land use is depicted in Figure 3.

The area adjacent to the project has been planned for light industrial, commercial, and medium density residential uses in the Clackamas County Comprehensive Plan adopted in 1974 (Figure 4). The zoning is interpretive of the Comprehensive Plan with all adjacent areas zoned for either commercial or industrial uses (Figure 5). The adjacent single family residences are a non-conforming use.

The proposed widening of S.E. 82nd Drive would be consistent with current zoning and with the Comprehensive Plan.

The existing 60-foot right-of-way for S.E. 82nd Drive is of sufficient ...dth to allow the construction of this project with no additional right-of-way or easements being required.

Population and Employment

Forecasts indicate that by the year 2000, population and employment in the project vicinity will increase significantly (Table 1). An area of ten traffic zones including the project zone (Figure 6) is projected to increase 68 percent in population, from 9,940 persons in 1977 to 16,740 in 2000.* A larger increase is expected in employment. Between 1976 and 2000, these ten zones are forecast to increase about 256 percent from 7,070 employees to 25,170 employees. By 2000, the project zone 367 (Figure 6) is forecast to

*Based on C.R.A.G. population and employment estimates by census tracts with a Clackamas County distribution to traffic zones.

FIGURE 3

EXISTING LAND USE MAP

SINGLE FAMILY

MULTI-FAMILY

COMMERCIAL

INDUSTRIAL

PUBLIC

VACANT

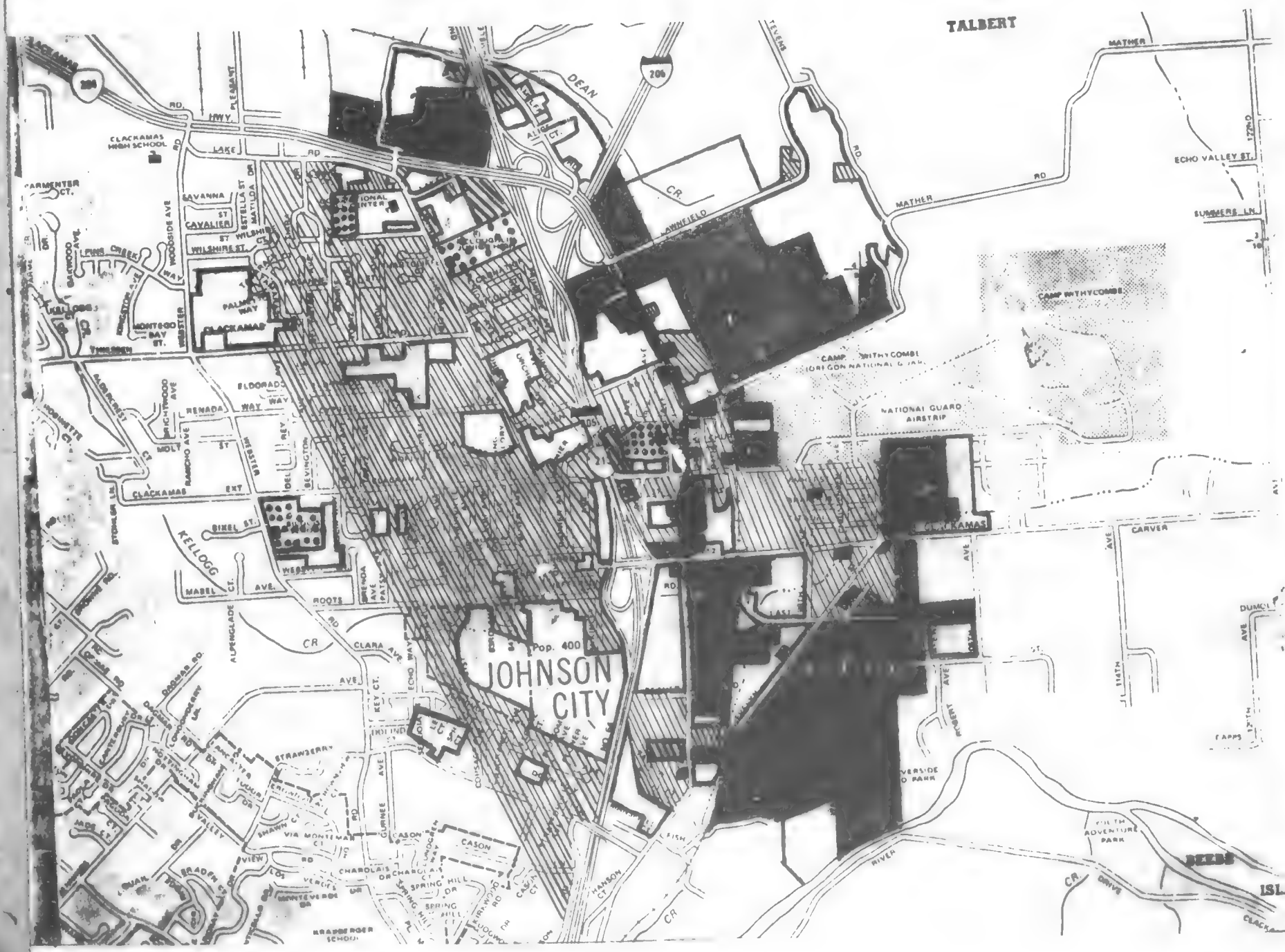


FIGURE 4

COMPREHENSIVE PLAN

LAND USE MAP

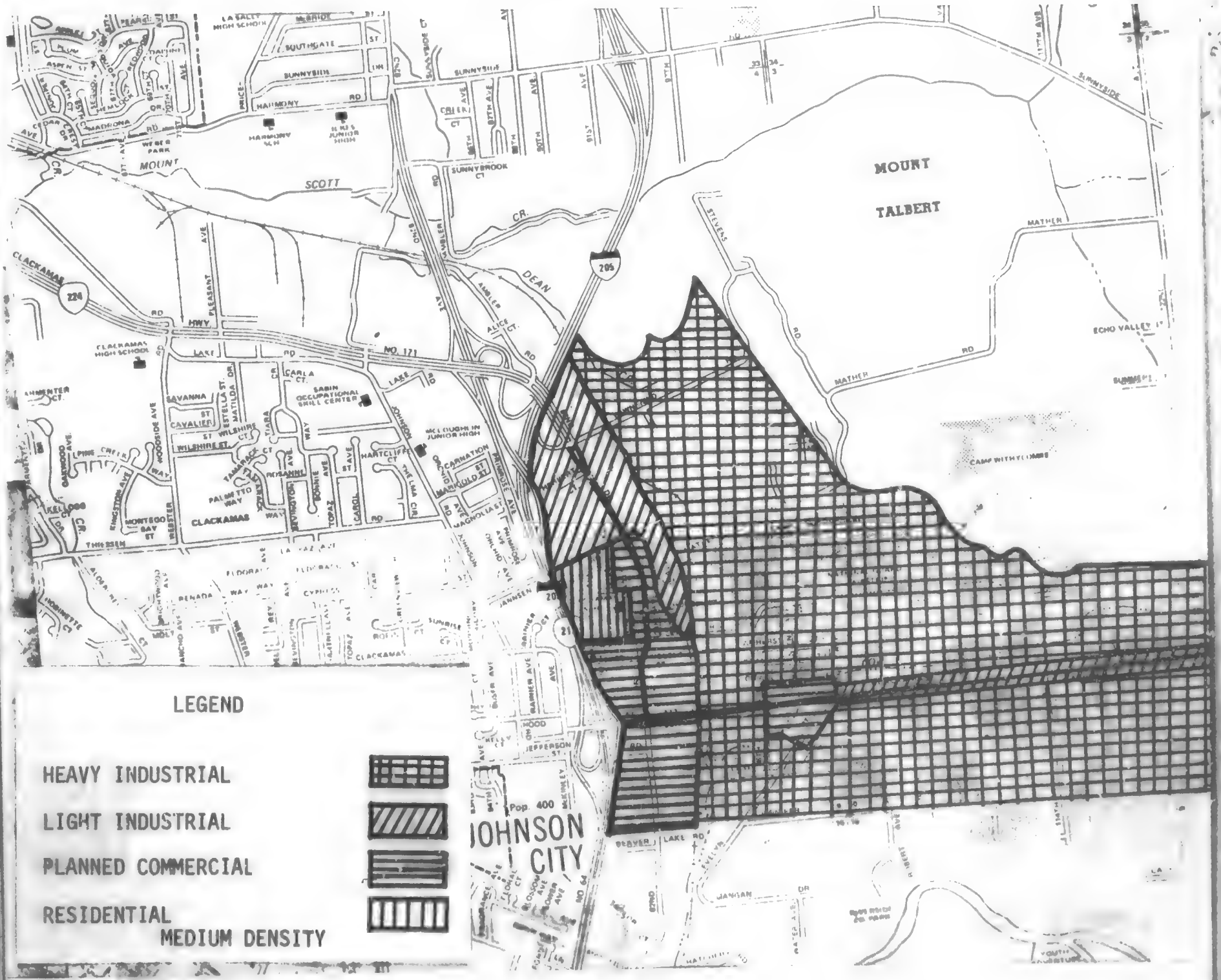
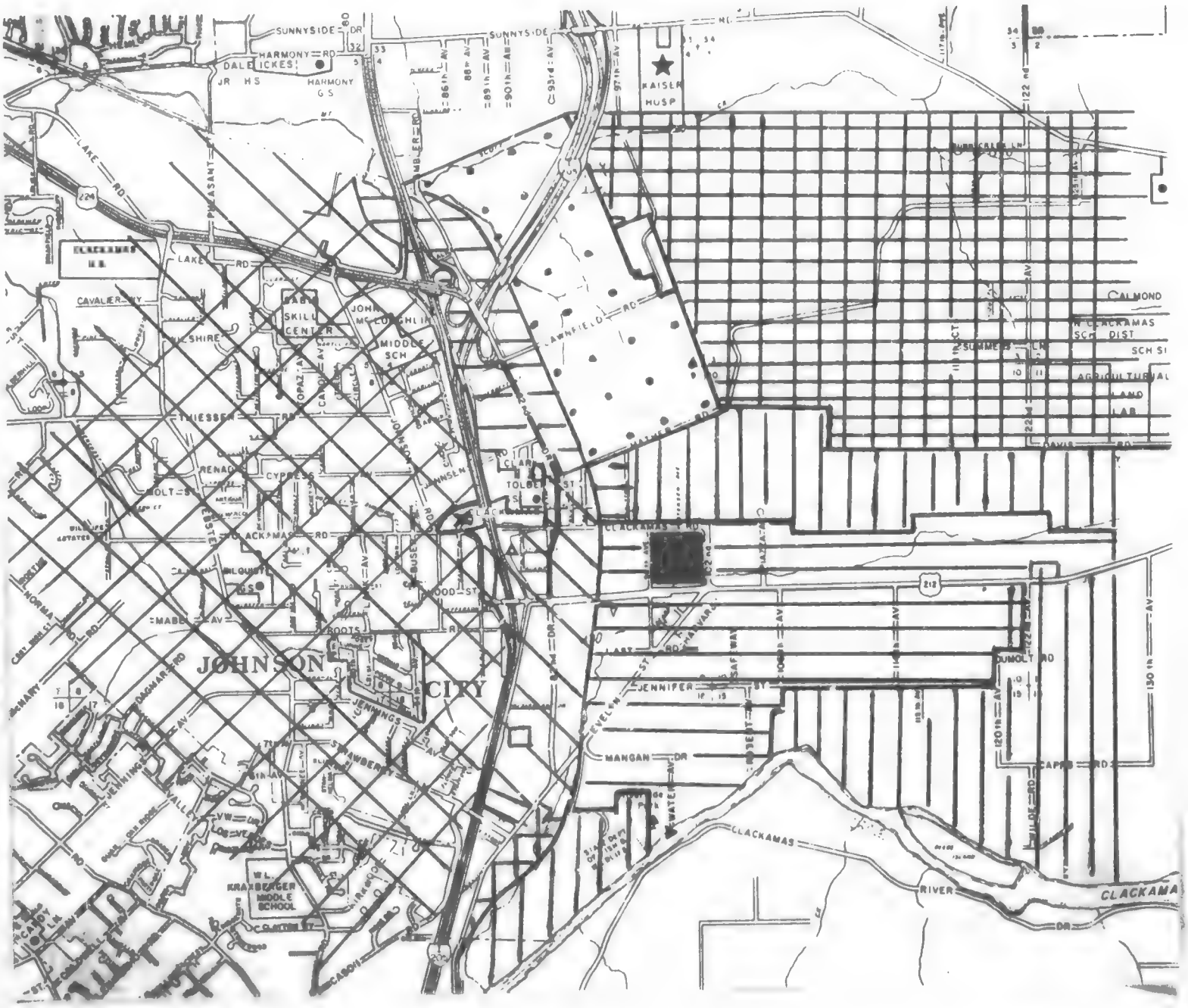


FIGURE 5

ZONING



LEGEND

RESIDENTIAL

RA-1

AGRICULTURAL/1 Acre

R-7

7000 Sq. Ft.

R-8.5

8500 Sq. Ft.

RESIDENTIAL

R-10

10,000 Sq. Ft.

R-20

20,000 Sq. Ft.

MR-1

Multi-Family

COMMERCIAL/INDUSTRIAL

C-2

Community Commercial

I-2

Light Manufacturing

I-3

Heavy Manufacturing

TABLE 1

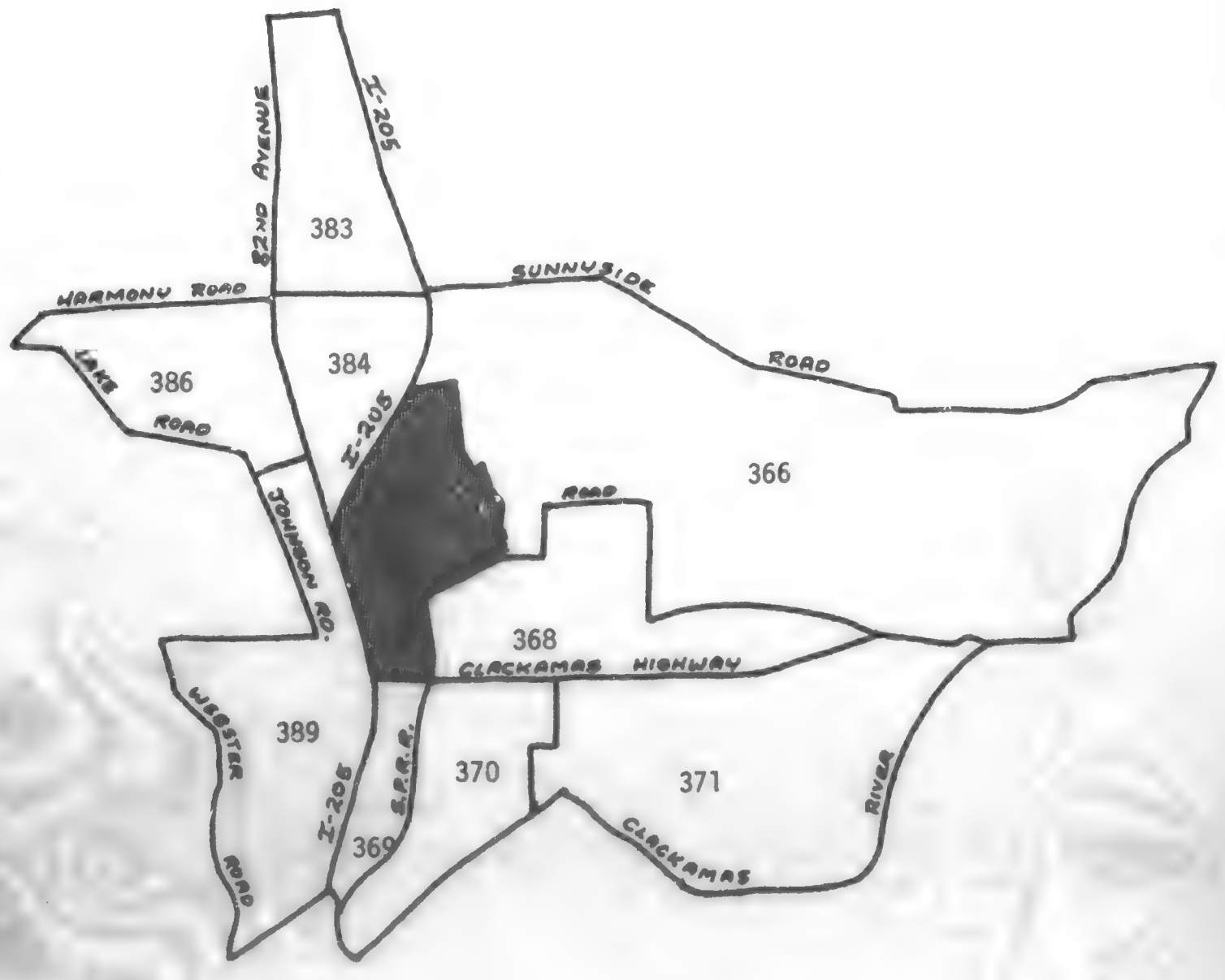
Population and Employment

by Traffic Zone

1977 - 2000

Traffic Zone	POPULATION		EMPLOYMENT	
	1977	2000	1977	2000
366	2,180	4,780	1,400	1,700
367	500	600	400	2,300
368	450	450	400	2,670
369	600	800	100	550
370	200	200	1,100	2,320
371	560	760	1,550	6,080
383	750	3,150	800	5,500
384	500	1,600	140	1,370
386	100	100	780	2,280
389	4,100	4,300	400	400
TOTAL	9,940	16,740	7,070	25,170

FIGURE 6
TRAFFIC ZONES



PROJECT ZONE

grow 20 percent in population and 475 percent in employment..

The project is expected to facilitate but not significantly influence these projected increases in population and employment.

Economic Impacts

The proposed project would eliminate on-street parking along the project section of S.E. 82nd Drive. This would impact those businesses which depend upon the road shoulder for customer parking. The Short Stop Cafe and Art's Welding appear to be the most potentially impacted businesses. Both draw their business from truck drivers who depend on the roadway shoulder as a place to park their large trucks. All existing driveways would be allowed entrance onto the project but would be modified by tne curbs and sidewalks. Future commercial development would be required to provide offstreet parking facilities.

The continuous left turn lane incorporated into the project would improve access to all locations along this portion of S.E. 82nd Drive.

Traffic

A summary of the existing and projected traffic data is presented in Table 2.

The existing traffic volume on 82nd Drive is 8,600 vehicles per day with volumes of 12,000 vehicles per day on the south end of the project at the intersection approach to the Clackamas Highway. Afternoon peak hour traffic volumes of 800 vehicles have been recorded on this road.

The existing roadway is two lanes with unimproved shoulders. Left turning vehicles into commercial and industrial land use developed adjacent to the roadway results in delay to through traffic. The potential for increased accidents exists due to the number of conflicts encountered along this road.

TABLE 2
Existing and Projected
Traffic Information

82nd Drive "NO-BUILD"

YEAR	Average Day Vol.	T	SP	Peak Hour Vol.	T	SP
1977	8,600	5	30	800		
1990	14,000	6	18	1,230		
1998	14,000	6	18	1,230		

82nd Drive "BUILD" 3-Lane

1977	8,600	5	30	800		
1990	15,300	6	26	1,380		
1998	19,400	6	24	1,720		

82nd Drive "BUILD" 4-Lane

1977	8,600	5	30	800		
1990	15,300	6	27	1380		
1998	19,400	6	25	1720		

I-205 "NO-BUILD" on 82nd Drive

1977	38,400		55			
1990	77,800		48			
1998	101,700		36			

I-205 "BUILD" 3 or 4 Lane on 82nd Drive

1977	38,400		55			
1990	76,500		48			
1998	96,300		39			

Abbreviations: PTH = Peak Truck Hour; Vol. = Traffic Volume (veh/day or veh/hr-two-way)
T = Truck Volume (trucks/day or trucks/hr two-way)
SP = Speed of Vehicles (average two-way)

Future traffic volumes were developed using the current population-employment forecast developed by Clackamas County. The 1998 projected average daily traffic (ADT) for this road is 19,400. Either of the build alternatives would provide adequate capacity for this design year. A no-build would not provide the required capacity and as traffic volumes increase, congestion resulting in delays and accidents can also be expected to increase. Also, as 82nd Drive becomes increasingly congested, more vehicles would be forced to use I-205 for the short distance between Lake Road interchange and the Clackamas Highway, increasing congestion and weave on the freeway.

Either of the build alternatives would provide essentially the same relief from congestion and delay in this section since there is a high demand for left turn maneuvers. Assuming a four-lane section, the high demand for left turning maneuvers would reduce the availability of the center lane for through traffic.

Noise

Noise levels for this project were projected using a new highway traffic noise prediction model developed by the Federal Highway Administration in 1977*. The use of the model is based on a series of adjustments to a reference sound level. The reference sound level, or mean emission level, was developed through repeated measurement of noise generation from vehicles of all types. This model predicts the L_{eq}, or hourly weighted equivalent sound level, which is the sum of the acoustic contributions of the various classes of vehicles using the roadway.**

*This new model will be published in manual form and available for general distribution by FHWA in July 1978.

**The L_{eq} is the equivalent steady state sound level which, in a stated period of time would contain the same acoustic energy as the time varying sound level during the same period of time. The time varying sound level refers to the actual noise that is heard (actual noise is rarely produced in a steady state).

A conversion factor is then used to predict the L_{10} noise level.*

Traffic data used to compute noise levels for adjacent receptors are presented in Table 3.

The noise model was used to predict noise levels at a private residence east of 82nd Drive across the street from the Clackamas Business Center (refer to Figure 2, Land Use No. 28). This residence is located 64 feet from the centerline of the northbound lane and is the closest sensitive receptor to the roadway within the project section. One other sensitive receptor, a meeting hall (No. 13 on Figure 2) is situated closer to the roadway (39 feet) but is boarded up and does not appear to be in use at this time. The levels obtained through modeling at this residence were used to estimate levels which could occur at other receptors along 82nd Drive. Predicted traffic noise levels at the modeled residence during the peak hour and peak truck hour are summarized below:

SELECTED RECEPTOR SITE

L_{10} Noise Levels During Peak Hour (dBA)

	1977	1990	1998
No-Build	69	65	66
3-Lane Alternative	-	70	70
4-Lane Alternative	-	70	70

SELECTED RECEPTOR SITE

L_{10} Noise Levels During Peak Truck Hour (dBA)

	1977	1990	1998
No-Build	68	65	65
3-Lane Alternate	-	70	69
4-Lane Alternate	-	71	69

*The L_{10} is the sound level that is exceeded 10 percent of the time. This value is an indicator of both the magnitude and frequency of occurrence of the loudest noise events.

TABLE 3

PEAK HOUR VEHICULAR VOLUME ON 82nd DRIVE

Alternative	Year	Volume	Speed	%Trucks
No-build	1977	860	30	5
No-build	1990	1,400	18	6
No-build	1998	1,400	18	6
3-Lane	1990	1,530	26	6
3-Lane	1998	1,940	24	6
4-Lane	1990	1,530	27	6
4-Lane	1998	1,940	25	6

PEAK TRUCK HOUR VEHICULAR VOLUME

Alternative	Year	Volume	Speed	%Trucks
No-build	1977	645	30	9
No-build	1990	1,050	18	9
No-build	1998	1,050	18	9
3-Lane	1990	1,150	26	9
3-Lane	1998	1,450	24	9
4-Lane	1990	1,150	27	9
4-Lane	1998	1,450	25	9

Noise levels during the peak hour and peak truck hour are nearly the same, with maximum levels occuring in 1990 during the peak truck hour.

Federal Highway Administration (FHWA) noise standards provide a maximum allowable design noise level of 70 dBA for sensitive receptors such as residences, churches, or schools (Table 4). Noise levels are currently within allowable limits at all receptors; however, by 1990, receptors identified in Figure 2 by Numbers 13, 16, 28, and 38 are expected to be exposed to noise levels of 70 dBA or greater with the four-lane alternative during the peak truck hour. Noise levels are not expected to exceed allowable limits with either the three-lane alternative or the no-build condition. Clackamas Elementary School would not be significantly affected by increased traffic noise as a result of this project.

Because future noise levels would exceed federal design standards, the feasibility of mitigation was investigated in compliance with FHWA guidelines (FHPM 7-7-3). It was determined that mitigation measures were not practical or cost effective. Frequent established accesses to 82nd Drive prevent the construction of adequate noise barriers or sound berms, and the industrial and commercial nature of the project corridor make the prohitibition of truck traffic during certain hours impractical.

Project construction is expected to result in temporary but adverse noise conditions. In order to minimize this impact, operating time restrictions will be imposed on construction activities within 1,000 feet of an occupied dwelling unit, between the hours of 10 PM and 7 AM and during all hours in Sunday and legal holidays. Exception to these time restrictions may be granted according to provisions of applicable state and local laws, ordinances, and regulations relative to noise control. If no regulations exist, exceptions may be granted by the resident engineer.

Table 4. Federal Highway Administration Design Noise Level Standards

Design Noise Levels - dBA L_{eq} (h)	L_{10} (h)	Description of Activity Category
A. 57 (Exterior)	60 (Exterior)	Tracts of land in which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. Such areas could include amphitheaters, particular parks or portions of parks, open spaces, or historic districts which are dedicated or recognized by appropriate local officials for activities requiring special qualities of serenity and quiet.
B. 67 (Exterior)	70 (Exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, and parks which are not included in Category A and residences, motels, hotels, public meeting rooms, schools, churches, libraries, and hospitals.
C. 72 (Exterior)	75 (Exterior)	Developed lands, properties or activities not included in Categories A or B above.
D. 52 (Interior)	55 (Interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Air Quality

Methodology -- The effect that the proposed project would have on air quality has been determined by developing a total emissions analysis for each alternative, including the No Build*. Because 82nd Drive is a part of the I-205 corridor, and each represents an alternative travel route to the other, a total emissions analysis was accomplished for both the project section and the section of I-205 between Clackamas Highway and the Milwaukie Expressway.

The traffic data used to perform the total emissions analysis is shown in Table 5. Environmental Protection Agency Supplement 8 (AP-42) emission factors were used to calculate the total emission load values for carbon monoxide, hydrocarbons, and nitrogen oxide. Lead emission factors were compiled from EPA's publication, "Draft Supplementary Guidelines for Lead Implementation Plans". The results of the total emissions analysis for carbon monoxide (CO) were modified by using factors provided by the Oregon Department of Environmental Quality (DEQ) which reflect CO emission reductions as a result of the DEQ biennial Inspection/ Maintenance Program (I/M Program). In that the I/M Program only applies to vehicles which are licensed within the Metropolitan Services District (MSD), it was assumed that 75 percent of the trips in the project area originated within the MSD and would be affected by the I/M Program. The DEQ reduction factors for CO emissions from automobiles and light duty trucks are 40 percent and 38 percent in study years 1990 and 1998 respectively, as compared to vehicles not in the I/M Program. The 1990 and 1998 composite CO emission factors for all vehicle types are shown in Table 6. The factors for automobiles and light duty vehicles have been adjusted for vehicles in the study area which are subject to the DEQ I/M Program. The revised factors were utilized in the total emissions summary.

*Total emissions represent the predicted total tons of each pollutant which are emitted annually within the project section.

TABLE 5

Corridor Traffic Data

Year and Alternative	82nd Drive Volume (ADT)	82nd Drive Speed (MPH)	I-205* Volume (ADT)	I-205* Speed (MPH)
1977 Existing	8,600	30	38,400	55
1990 No Build	14,000	18	77,800	48
1990 3-Lane	15,300	26	76,500	48
1990 4-Lane	15,300	27	76,500	48
1998 No Build	14,000	18	101,700	36
1998 3-Lane	19,400	24	96,300	39
1998 4-Lane	19,400	25	96,300	39

*I-205 between Clackamas Highway and the Milwaukie Expressway

TABLE 6

1990 CO Emission Factors
by Vehicle Type

Speed	Light Duty Vehicle			Light Duty Trucks			Heavy Duty Trucks	
	No I/M	With I/M[1]	Comp[2]	No I/M	With I/M[1]	Comp[2]	Gasoline	Diesel
18	36.63	21.98	25.64	97.63	58.58	68.34	204.61	28.86
26	27.80	16.68	19.46	74.16	44.50	51.91	167.76	18.96
27	26.93	16.16	18.85	71.82	43.09	50.27	164.37	18.12
39	19.59	11.75	13.71	52.07	31.24	36.45	138.51	11.91
48	17.93	10.76	12.55	47.79	28.67	33.45	132.78	10.10

1998 CO Emission Factors
by Vehicle Type

Speed	Light Duty Vehicle			Light Duty Trucks			Heavy Duty Trucks	
	No I/M	With I/M[1]	Comp[2]	No I/M	With I/M[1]	Comp[2]	Gasoline	Diesel
18	22.77	14.12	16.28	94.90	58.84	67.85	198.07	28.49
24	18.48	11.46	13.21	77.03	47.76	54.46	173.37	20.65
25	17.89	11.09	12.79	74.57	46.23	53.32	170.04	19.58
36	12.91	8.00	9.23	53.98	33.47	38.60	144.81	12.72
39	12.13	7.52	8.67	50.72	31.45	36.26	140.95	11.70

[1]Based on a reduction factor calculated from DEQ data

[2]Based on assumption that 75% of trips in the project area originate within the Metropolitan Service District

Two assumptions were used in calculating the total emissions. First, a temperature of 40°F, which is typical of the fall and early winter months when maximum concentrations of CO are most likely to occur, was used. And second, a cold start condition of 34 percent and a hot start condition of 28 percent was assumed.

Total Emissions Analysis -- The results of the analysis are shown in Table 7. The significant findings of the analysis are:

a. All major pollutant emission levels on S.E. 82nd Drive would be greater for either of the build alternatives than for the no-build condition by 1998.

b. Hydrocarbon, carbon monoxide, and nitrogen oxide (NOx) emission levels on I-205 would be less by 1998 as a result of this project attracting traffic to 82nd Drive from I-205.

c. Hydrocarbon and carbon monoxide emissions in the project corridor would be less in 1998 with either of the build alternatives than with tne no-build condition.

d. Nitrogen oxide and lead emissions in the project corridor would be greater in 1998 with either of the build alternatives than with the no-build condition.

Regional Impacts -- One of the major factors to be considered on a regional basis is the formation of photochemical oxidants. As can be seen from Table 7, hydrocarbon emissions would decrease approximately 7 percent while nitrogen oxide emissions would increase less than 2 percent in the I - 205 corridor with

TABLE 7

Total Emission Loads (Tons/Year)

Section	Pollutant	1977 ALTERNATIVES			1990 ALTERNATIVES			1998 ALTERNATIVES		
		No-Build	Three Lane	Four Lane	No-Build	Three Lane	Four Lane	No-Build	Three Lane	Four Lane
S.E. 82nd DR. (Hwy. 212 to Lawnfield Rd.)	Hydrocarbons	25.39	-	-	21.90	18.20	17.65	17.29	19.16	18.52
	Carbon Monoxide	218.08	-	-	176.98	148.29	143.85	143.17	162.23	158.12
	Nigrogen Oxides	13.82	-	-	15.60	18.35	18.55	14.87	21.69	21.88
	Lead	0.05	-	-	0.01	0.02	0.02	0.01	0.02	0.02
I-205 CLACKAMAS HWY.- MILWAUKIE EXPRESSWAY	Hydrocarbons	100.38	-	-	67.79	66.66	66.66	78.57	69.81	69.81
	Carbon Monoxide	764.55	-	-	565.42	555.98	555.98	695.43	624.07	624.07
	Nitrogen Oxides	90.26	-	-	130.46	128.29	128.29	143.73	139.98	139.98
	Lead	0.42	-	-	0.19	0.18	0.18	0.19	0.19	0.19
CORRIDOR**	Hydrocarbons	-	-	-	89.86	84.86	84.31	95.86	88.97	88.33
	Carbon Monoxide	-	-	-	742.40	704.27	699.83	839.10	786.30	782.19
	Nitrogen Oxides	-	-	-	146.06	146.63	146.84	158.60	161.67	161.86
	Lead	-	-	-	0.20	0.20	0.20	0.20	0.21	0.21

* The reader should note that the above data reflects the future expected improvements to vehicle emission systems. Air quality should improve as a result of this until about the late 1980's at which time population growth would offset this improvement factor and air quality would again decrease.

** Sum of the values computed for I-205 and 82nd Drive

either of the build alternatives. Table 8 shows the relationship of hydrocarbon and nitrogen oxide concentrations to the hydrocarbon oxidation rate. A reduction in hydrocarbon concentration reduces the hydrocarbon oxidation rate in all cases. Thus the project would exert a positive effect on reducing photochemical oxidant.

Local Impacts -- Carbon monoxide concentrations would be reduced in the future, as can be seen from Table 7, with either of the build alternatives. Lead concentrations would increase less than 1 percent with the build alternatives in 1998 over the no-build condition, and would be reduced over 50 percent from present levels.

Conclusion -- The results indicate that the overall regional air quality impact of the build alternatives would be beneficial. Although the build alternatives indicate an increase in hydrocarbon and carbon monoxide emission levels on 82nd Drive by 1998, the corresponding traffic decrease on I-205 as a result of the project would be sufficient to expect a net decrease in corresponding emission levels in the I-205 corridor.

The reason that these emission levels on 82nd Drive would be greater under the build alternatives than the no-build by 1998 is that the improved facility would allow greater volumes of traffic to use 82nd Drive without significantly improving the speed. In order to maintain existing air quality under increased traffic volumes, the traffic would have to travel at correspondingly higher speeds. The many accesses, the short length of 82nd Drive, and the major intersections at either end of the project preclude any significant speed increases.

Under the no-build condition, 82nd Drive would reach capacity after 1990, forcing overflow traffic to use I-205 as an alternate route. The additional traffic on this segment of I-205 would decrease traffic speeds by twelve miles per hour by 1998. The extra traffic, combined with decreased travel speeds, would increase hydrocarbon and carbon monoxide loads on I-205 a sufficient amount to

TABLE 8

DECREASE IN HYDROCARBON OXIDATION RATE*

Per Cent Decrease in Atmospheric Hydrocarbon Concentration	Per Cent Decrease in Atmospheric Nitric Oxide Concentration			
	0	25	50	75
0	-	-	-	18
50	64	58	52	56
75	82	80	78	70

*Caplan, J.D., "Smog Chemistry Points Way to Rational Vehicle Emission Control", SAE Transportation, Volume 74; 1966.

raise pollutant levels in the I-205 corridor higher than they would be under either of the two build alternatives.

The build alternatives would not result in lower emission levels in the I-205 corridor for nitrogen oxides or lead. In 1998, the levels of nitrogen oxides for the build alternatives would exceed the levels obtained under the no-build alternative by approximately 1 percent. Nitrogen oxides (NOx) emissions do not respond to traffic speeds in the same manner as hydrocarbons and carbon monoxide; instead, as vehicle speeds increase, NOx emissions also increase. The increase, however, is not expected to be a significant problem as NOx levels in the Portland area are well below violation levels. Lead levels in the Portland area are currently within standards, also. Lead emissions will decrease in the future, as the number of cars powered by unleaded gasoline increase.

In that this project would not increase traffic volumes by more than 10,000 vehicles, an Indirect Source Construction Permit from the Department of Environmental Quality is not required.

Material Resources and Energy

The project would require no special earth disposal sites. The 1500 cu. yds. of material to be excavated from the site would become the property of the contractor. This material could be sold or reused at the contractor's option. Road base and paving materials would require approximately 8,700 tons of crushed rock and 380 tons of petroleum-derived asphalt cement from commercial sources. Both of these materials are becoming limited in supply - the rock supply regionally and the petroleum supply worldwide - but the proposed project would use them to good advantage by improving the operation and efficiency of an existing highway without an excessive investment of materials.

Cultural Resources

Cultural resources of a highway project area are properties of historic, archaeological, or similar significance which are located adjacent to the alignment of any proposed alternative. These properties are identified by various official listings at the national and state levels and by local organizations interested in historic preservation.

There are no properties in the project area which are listed, nominated, or eligible for the National Register of Historic Places or listed in the Statewide Inventory of Historic Sites and Buildings. A field survey of the area revealed no sites or buildings which are known to possess historic value or potential for designation. The area has several older farm houses which may have future potential for recognition by the local community, but these properties are located a considerable distance from the existing roadway and would not be affected by either project alternative. (See Appendix II).

Although inhabited by Indians during an earlier period, the probability of an important archaeological discovery is eliminated by extensive development of the area. There are no large areas of undeveloped land where archaeological materials would have remained undisturbed within the strata of deposition. Consequently, an archaeological reconnaissance survey will not be required prior to construction of the project.

The Oregon State Historic Preservation Office was contacted in regard to properties of historical significance in the project area.

SUMMARY OF IMPACTS

Table 9 summarizes the probable short-term and long-term impacts of the proposed project. "Short-term" refers to immediate effects of the construction; "long-term" refers to effects which are likely to occur within the next 20 years.

TABLE 9

SUMMARY OF IMPACTS FOR BUILD ALTERNATIVE

	SHORT TERM	LONG TERM
HYDROLOGY	Negligible increase in runoff due to increased paved surface. Improved drainage.	
ECONOMICS	Discontinuance of shoulder parking will impact certain businesses.	Left turn capability will benefit circulation into commercial areas.
TRAFFIC	Reduced congestion on local route between Highway 212 to Lawnfield Road. Slightly reduced travel times.	
AIR QUALITY	An overall slight benefit to corridor air quality	
NOISE LEVELS	A very slight increase in noise levels for adjacent receptors.	
MATERIALS & ENERGY	Consumption of rock, asphalt cement and other materials by the project.	Slightly improved vehicular efficiencies in traffic.
COST OF PROJECT	$413,000.00	Decrease in maintenance costs
CULTURAL RESOURCES	No significant impact.	

PUBLIC PARTICIPATION

An informational meeting for property owners and local citizens was held at the Clackamas Elementary School on January 25, 1978. Interested parties were notified, flyers were distributed to residences and public places, and the meetings were announced in the local press two weeks in advance.

An afternoon long individual information booth was held from 1:00 PM to 7:30 PM. Only 10 citizens attended the booth to express their interests in the project. The most asked questions were "Will additional right-of-way be required?"; "Will existing curb and sidewalks be incorporated into the new design?" and "Will there be any parking on the roadway for cars and trucks?"

The information booth was followed by an information public meeting commencing at 7:30 PM which gave an opportunity to receive and respond to more citizens' input. This meeting was attended by 12 people, four of whom were also at the earlier information booth. One state representative, two ODOT employees, and a newspaper reporter were also in attendance. Questions and comments were directed principally toward the effect of the loss of on-street parking. The alternative of eliminating one or both of the proposed sidewalks to allow space for parking was suggested by several citizens. However, deleting sidewalks would be inconsistent with current zoning requirements. Comments from the developer of the Clackamas Business Center and other potential developers along the corridor expressed approval of the proposed design.

Three letters were received, two of which expressed further support for the project objectives. The third maintained that the inclusion of pedestrian walks would be an unnecessary expense.

Basis for Negative Declaration

The Oregon Department of Transportation concludes that the proposed project constitutes a "major action" as defined in the Federal-Aid Highway Program Manual Volume 7, Chapter 7, Section 2, and that implementing the project will not significantly affect the qualify of our environment; therefore, an environmental impact statement will not be required.

11-20-78
Date

E J Hunter
Technical Services Engineer

12-15-78
Date

W. E. Crumb
FHWA Division Engineer

FINAL

NEGATIVE DECLARATION

S.E. 82nd Drive

from

Highway 212

to

Lawnfield Road

Appendix I

FINAL

NEGATIVE DECLARATION

S.E. 82nd Drive

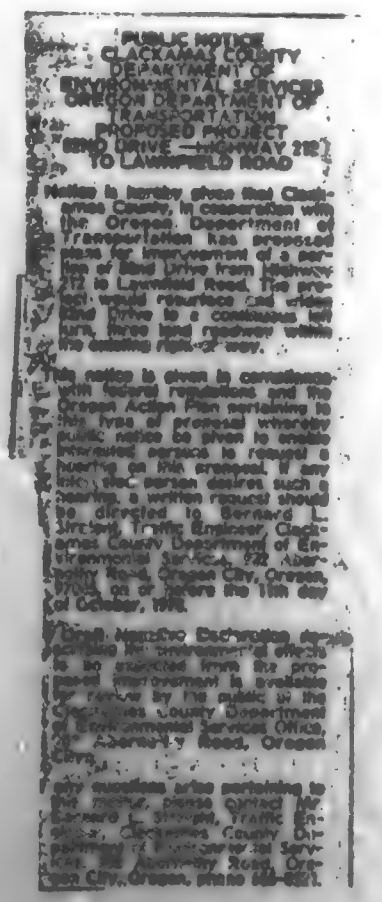
from

Highway 212

to

Lawnfield Road

Appendix II



PUBLIC NOTICE
CLACKAMAS COUNTY
DEPARTMENT OF
ENVIRONMENTAL SERVICES
OREGON DEPARTMENT OF
TRANSPORTATION
PROPOSED PROJECT
SUNDIAL DRIVE — (HIGHWAY 212)
TO LAWNFIELD ROAD

Notice is hereby given that Clackamas County, in cooperation with the Oregon Department of Transportation has proposed plans for improvement of a portion of Sunnyside Drive from Highway 212 to Lawnfield Road. The project would resurface and widen Sunnyside Drive to a continuous five lane, three land roadway within the existing right of way.

This notice is given in accordance with federal regulations and the Oregon Action Plan pertaining to the type of proposal whereby public notice be given to enable interested persons to request a hearing on this proposal. If any such person desires such a hearing, a written request should be directed to Bernard L. Sinnett, Traffic Engineer, Clackamas County Department of Environmental Services, 902 Abernethy Road, Oregon City, Oregon, 97045, on or before the 11th day of October, 1978.

Right Relative Displacing persons pertinent to improvement which is to be effected from the proposed improvement is available for review by the public in the Clackamas County Department of Environmental Services Office, 902 Abernethy Road, Oregon City, Oregon.

Any questions arise pertaining to the matter, please contact Mr. Bernard L. Sinnett, Traffic Engineer, Clackamas County Department of Environmental Services, 902 Abernethy Road, Oregon City, Oregon, phone 655-8521.

In the _____ *Court of the State of Oregon*

for the County of Multnomah

_____

_____ Plaintiff

vs.

_____

_____ Defendent

Affidavit of Publication

STATE OF OREGON }
County of Multnomah } ss.

I, JM MCINTEER being first duly sworn depose and say that I am the Principal Clerk Of The Publisher of The Oregonian, a newspaper of general circulation, as defined by ORS 193.010 and 193.020, published in the City of Portland, in Multnomah County, Oregon; that the advertisement, a printed copy of which is hereto annexed, was published without interruption in the entire and regular issues of The Oregonian for TWO ISSUE successive and consecutive on the following dates:

09/20-09/27 1978

J M McInteer
Principal Clerk Of The Publisher

Subscribed and sworn to before me this 11th day of Sept 1978

Evelyn F Mayer
Notary Public for Oregon

My Commission Expires July 8, 1979

My Commission expires _____

F-1703

8957

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE - Salem, OR 97301

DATE: August 29, 1978

In reply refer to: HPD.2-OR

SUBJECT: Oregon Project M-9653(1)
S.E. 82nd Drive from Hwy. 212
to Lawnfield Road
Clackamas County

FROM : G. L. Green, Division Administrator

TO : Mr. Gary A. Potter, Mgr., Environmental Section
Oregon Dept. of Transportation

The Draft Negative Declaration has been approved by our Division Administrator on August 25, 1978.

Please make copies of this draft statement available, as required by FHPM 7-7-2.

The original signed copy of the Title Sheet was hand-carried to your office for immediate processing.

Original Signed By
P. V. RIEDL
Environmental Coordinator
Engineer
G. L. Green

cc:
Mr. H.S. Coulter, OSHD
Mr. E. S. Hunter, ODOT
Mr. D.E. Swan, ODOT w/att.
Mr. R. Sothman, Metro

NOTED
H.S.COULTER

RECEIVED
STATE ENVIRONMENTAL
AUG 30 '78
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

8957

H SURVEY DATA REC'D. 4-17-78

Z FILES 9653

R.R. Cameron, Resident Engineer

NARRATIVE REPORT

Lawnfield Road - Clackamas Highway Section
S.E. 82nd Drive
Clackamas County
Prefix 303-1938

March, 1978

The purpose of this project is to widen and overlay S.E. 82nd Drive from Lawnfield Road to Clackamas Highway. The ADT as of January 1977 is 8,400 vehicles, projected ADT 16,200 vehicles by 1996.

The survey begins approximately 700 feet westerly of Lawnfield Road "L" Sta. 228 and ends at northerly side of Clackamas Highway "L" Sta. 262. The total length of the project is 0.64 mile. From beginning of project to Adams Street, the roadway will be 44 feet wide curb to curb, with 5 foot sidewalks on both sides; Adams Street to Clackamas Highway the roadway will be 55 feet curb to curb, with sidewalks on both sides. This section will have an extra travel lane for right turn lane only. 1/

The right-of-way widths from beginning of project to Adams Street averages approximately 60 feet in width, from Adams Street to Clackamas Highway, approximately 70 feet in width. Because of the right-of-way widths, there will be two 15-foot travel lanes with a continuous 14-foot median area for left turns. No parking will be allowed on either side of the roadway.

The surfacing design calls for an initial 4 inch A.C. overlay over 28 feet of original pavement. Outside of the original pavement, the surfacing will consist of 6" aggregate base and 4 inches A.C. base, plus the 4 inch overlay. The overlay thickness and surfacing depth was determined from deflection measurements. The preliminary estimated construction cost of $289,000 has been updated to $413,000.

The horizontal alignment was adjusted in some areas to keep fill slopes within the highway right-of-way and also to meet existing curb and sidewalks. Supers are substandard due to matching existing pavement. There is a 4^{o} C.R.; no Super, 10^{o} C.R. with 0.02 per ft. Super; 10^{o} C.R. no Super; and 10^{o} C.L. no Super. Safe speed is 35 MPH.

No vertical alignment has been computed. A uniform overlay will provide a sufficiently smooth profile. The tangent sections will have a 0.02 per ft. slope except where we have to meet existing curb and sidewalks, the slope will be variable. The maximum gradient is 2%, maximum degree of curvature 10^{o}. The street connections will have 25 foot radius curb returns.

Clearing and grubbing consists mostly of shrubs and a few small trees along the property lines. Trimming of hedges and some trees along the sidewalk area will be involved.

The excavation consists of removing the existing shoulder area on both sides of the old pavement. The average width of excavation varies from 8 feet to 10 feet, the depth will average 10 inches to 12 inches. The total excavation amounts to 2.600 cu. yds. and the embankment 965 cu. yds. This will leave a surplus of 1,500 cu. yds. for the contractor to dispose of.

A storm sewer system was designed for the project (by request from the Clackamas County Engineer). We are using the existing storm sewer on the right side from Sta. 232 to 243+70 (Talbert Street which is located the outfall manhole with a 24 inch sewer pipe turning easterly to the SPRR drainage ditch). The existing storm sewer line meets our storm sewer design flow except for one run of pipe, 275 feet in length, shows under design of 0.2 cfs for 12 inch pipe. The drainage area begins at Sta. 227, flows to Talbert St. Sta. 243+70 outfall sewer pipe. Sta. 250+80 to Talbert Street outfall sewer pipe. Sta. 258+60 to 251+40 Clackamas Road outfall storm sewer to SPRR drainage ditch. Sta. 258+60 to Sta. 262+20 existing inlet to existing outfall manhole, Clackamas Highway to outfall sewer ditch along SPRR.

Utilities will be involved in construction. PGE power poles and Pacific Northwest Bell poles will have to be moved back between the sidewalk and property lines. The underground utilities such as gas lines might be affected. Sanitary sewer lines seem to be low enough not to be involved with our storm sewer lines.

A concrete retaining wall will be constructed at Sta. 248+75 to Sta. 249+25 left side, back of sidewalk, to keep fill slope from encroaching on private property. The county engineer may look into the possibility of a slope easement of 5 feet wide and 70 feet long in place of the retaining wall.

The signals at 82nd Drive and Clackamas Highway will be revised to provide for revised channelization. Relocation of detection loops on 82nd Drive should be all that is needed.

1/ The field crew staked and referenced a "P" line on the right side of the roadway. All topography, field ties and cross sections were taken from the "P" line. The elevations were taken from O.S. H.D. Brass Disc. on Lake Road overpass and checked in to O.S.H.D. Brass Disc on Clackamas Highway overcrossing I-205.

RRC:js
ODOT
3/24/78

Lawnfield Rd.-Clackamas Hwy. Section
S.E. 82nd Drive
Clackamas County
Prefix: 303-1938

R. R. Cameron, Location Engineer
February, 1978

COST SUMMARY

Section	Item	Unit	Quantity	Unit Price	Amount
110	7% Mobilization	All		Lump Sum	$21,760
111	3% Temporary protection and direction of traffic	All		Lump Sum	9,325
111	Temporary Signs	Sq. Ft.	165	$6.50	1,073
111	Flagging	Hrs.	1,000	$18.00	18,000
201	Clearing and grubbing (0.5 AC)	All		Lump Sum	1,000
202	Removal of structures and obstructions	All		Lump Sum	2,500
202	Removal of sidewalks	Sq. Yds.	56	$3.00	
202	Removal of concrete curbs	Lin. Ft.	140	$.75	
202	Removal of inlets	Each	13	$100.00	
202	Removal of sewer pipe	Lin. Ft.	135	$1.75	
203	General excavation	Cu. Yds.	2,595	$6.25	16,219
203	Ditch excavation	Cu. Yds.	25	$7.50	188
206	Trench excavation	Cu. Yds.	1,140	$8.00	9,120
233	Watering	M-Gals.	128	$10.00	1,280
251	Structural excavation	Cu. Yds.	12	$15.00	180
305	Plant mix aggregate base	Tons	2,860	$5.75	16,445
403	Class "B" asphaltic conc. mixture	Tons	5,843	$15.00	87,645
403	Asphalt cement in mixture	Tons	380	$85.00	32,300
407	Asphalt tack coat	Tons	2	$250.00	500
504	Class "A" conc. in retaining wall	Cu. Yds.	13	$150.00	1,950
505	Reinforcement in retaining wall	lbs.	700	$.45	315

Lawnfield Rd.-Clackamas Hwy. Sec.
Prefix: 303-1938
Cost Summary
February, 1978

Section	Item	Unit	Quantity	Unit Price	Amount
603	12" sewer pipe	L. F.	3,080	$7.25	$22,330
603	Extra for pipe under pavement	L. F.	656	$8.00	5,248
603	15" sewer pipe	L. F.	24	$9.00	216
604	Concrete manholes type "A"	Each	14	$800.00	11,200
604	Type CG-1 conc. inlet	Each	38	$400.00	15,200
607	Chain link fence CL-4	L. F.	50	$6.00	300
608	Concrete sidewalks (17 ramps included)	Sq. Yds.	2,289	$10.00	22,890
608	Concrete driveways	Sq. Yds.	310	$16.00	4,960
608	Concrete sidewalk ramps (exist. sidewalks)	Each	3	$250.00	750
608	Concrete steps	Cu. Yd.	2	$95.00	190
609	Monolithic curb and gutter type "A"	L. F.	5,712	$5.50	31,416
610	Extra for AC approaches	Each	30	$125.00	3,750
610	Extra for AC street connections	Each	9	$250.00	2,250
628	Adjust storm sewer manholes	Each	1	$200.00	200
628	Adjust inlets	Each	5	$250.00	1,250
	Subtotal				$341,950
	Extra work for moving mail boxes	Each	11	$50.00	550
	Extra work for adjust san. sewer MH (~~by others~~)	Each	11	* 200.00	2,200
	Extra work for installing signal loops in pavement on the north and south side Clackamas Highway			Lump Sum	1,000
	SFO for striping by state forces			Lump Sum	1,000
	Subtotal				~~346,700~~ ~~$348,500~~
	+20% engineering and contingencies				~~69,500~~ 69,300
	TOTAL				~~$418,000~~ $ 416,000.

U. S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

8457

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
M-9653(1)

STATE PROJECT NO.
See below

FROM:
G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
71418

COUNTY NAME
Clackamas

PROGRAM STAGE (Check)
☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State HighwayEngineer
State of Oregon
Salem, Oregon

RECEIVED
STATE HWY ENGR
MAR 21 '77
REFER TO
Rulien
FOR
Info | Invest | R/D | D/R | Sec | Jct | File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
	3-17-77	FAU 9653	County Rd.

GENERAL LOCATION:

"Lawnfield Road - Clackamas HighwaySection"

GENERAL DESCRIPTION OF WORK:

Preliminary engineering.

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION

☒ OTHER (Specify) All phases of preliminary enginsering necessary to obtain an approved negative declaration
TEC $10,000 - FF $8,850.

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS

☐ CONSTRUCTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Rulien's 3-3-77 letter, you are authorized to proceed with the work as shown above.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
3-17-77	E Holack	Division Administrator

Form PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

8957

Pro 6-2

9015

ROBERT W. STRAUB
GOVERNOR

Department of Transportation

STATE HIGHWAY BUILDING, SALEM, OREGON 97310

March 3, 1977

TO G. L. Green, Division Administrator
Federal Highway Administration

FROM L. W. Rulien
Program Management Engineer

SUBJECT Project Data Submission
Item No. 71418
Project No. M-9653(1)
Lawnfield Rd. - Clackamas Highway Section
Clackamas County

Enclosed is data for the subject project. This project has been originated by local officials and concurred in by the Oregon Transportation Commission and the State Highway Division.

We request authorization to proceed with all phases of preliminary engineering necessary to obtain an approved negative declaration at an estimated total cost of $10,000 with federal funds of $ 8,850.

CL:eb
cc: R. N. Bothman (metro)
D. E. Swan
C. Zehner

MONTHLY TRANSACTION NO.

DATE SUBMITTED TO F. O. March 3, 1977

FORM PR-1 (REV. 4-61)

FEDERAL-AID PROGRAM DATA

CARD 2 — REPORT NUMBER (10–20) | PROJECT LOCATION (45 typewriter spaces) (21–65): Co. Rd, S.E. 82nd Dr. 1.1 mi. N.E. of Gladstone. | ADT | PRESENT (66–69): 8,400 | FUTURE (66–69): 16,200 | YEAR (70–71): 97 | REGION (72): 10 | STATE NAME: Oregon

CARD 3 — CHARACTER OF PROPOSED WORK (35 typewriter spaces) (28–62): P.E. Gr. Dr. H.T. Pave | NATL. FOREST (63–65) | FH ROUTE NO. (66–68) | SUFF. AGCY (69) | DA CLASSIF. (70) | DA AREA (71) | ENERG. YR. (72–73) | PL. AUTH YR. (74–75) | PROJECT NUMBER: PREFIX LETTER(S) (14–15): M- | NUMBER (16–19): 9653

CARD 4 — CLASS OF FEDERAL FUNDS: Urban System | COUNTY NAME: Clackamas | NAME OF URBAN AREA (17–31): Portland | ROUTE NO. U | FEDERAL-AID (32–35): 9653 | STATE (36–37): Co. Rd.

CARD 5	LINE NO.	CHANGE CODE	PROJECT CODE	WORK: CLASS	WORK: TYPE	WORK: STEP	TERMINI (Full description)	MILES	ESTIMATED PROJECT COST BY PHASES: TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS
1	(14-15)	(16)	41	42	43–46	53		(54–58)	(59–66)	(67–70)		
$					PE		"Lawnfield Rd-Clackamas Highway Section"	0.82	15,000	12,870	1,065	1,065 (C
$					ROW							
$					CONST (CODE) 6201			0.82	274,000	235,092	19,454	19,454 (C
							PROJECT TOTALS	0.82	289,000	247,962	20,519	20,519 (C

(116) (23) (24) (25) REMARKS

CARD 1 | CODE 1 | PREPARED BY: C. L.

CARD 1 | CODE 14 | PROGRAM APPROVAL DATES

October 27, 1976

FORM FR-1
(REV. 4-61)

FEDERAL-AID PROGRAM DATA

March 3, 1977

PROJECT LOCATION (45 typewriter spaces)		PRESENT	FUTURE	YEAR	REGION	STATE NAME	STATE CODE	APPN CODE	ITEM NO.
Co. Rd, S.E. 82nd Dr. 1.1 mi. N.E. of Gladstone.	ADT	8,400	16,200	97	10	Oregon	41	W36	71418

TYPE OF WORK (35 typewriter spaces)	NATL. FOREST	FH ROUTE NO.	SUPV AGCY	DA CLASSIF.	DA AREA	EMERG. YR.	PL. AUTH YR	PROJECT NUMBER PREFIX LETTER(S)	NUMBER	SEQ. NO.	T. Projects Only POST MI.	DESIG.
T. Pave								M-	9653 (1)			

Urban System

Portland

COUNTY NAME: Clackamas — CODE: 005

ROUTE NO. U — FEDERAL-AID: 9653 — STATE: Co. Rd. — U.S.: —

PROGRAM STAGE: [ ] 1 OR [ ] 2

WORK TYPE	STEP	TERMINI (Full description)	MILES	TOTAL ESTIMATED COST	FEDERAL FUNDS	STATE FUNDS	OTHER FUNDS	CHARACTER OF PROPOSED WORK (Full description)
E		"Lawnfield Rd-Clackamas Highway Section"	0.82	15,000	12,870	1,065	1,065 (Co)	Util. adj. incl. prep. work as required.
OW								
ONST (CODE) 201			0.82	274,000	235,092	19,454	19,454 (Co)	Row- 60' normal; Access Control-none Parking Restrictions-complete.
C. L.	PROJECT TOTALS		0.82	289,000	247,962	20,519	20,519 (Co)	

APPROVAL DATES

October 27, 1976

REMARKS

Lawnfield Rd. - Clackamas Hwy. Section
Project No. M-9653(1)

Existing Facility: 24 foot A.C. surfaced roadway with 6 foot gravel shoulders.

Adjacent Sections:
N. End---48 foot curbed roadway constructed under Project I-205-7(22)301.
S. End---52 foot A.C. surface constructed under Project I-205-7(22)301.

Project Data: Work under this project consists of the following:
1. Preliminary engineering all phases including preliminary engineering by utility forces.

2. Grade, drain and high type pave necessary to widen the existing facility to a 48 foot curbed roadway for four 12 foot travel lanes and sidewalks each side. Utility adjustments as required.

NOTE: Clackamas county forces may perform a portion of the preliminary engineering work with review and contracting by State forces.

System Action, Railroads, Water Developments, Historical and Recreational Areas: None involved.

Airports: Camp Withycombe National Guard Airstrip is located 3/4 mile east of the project. No conflict with the operation of the airstrip will result from this project.

FHPM 7-7-2 Requirements: Major action project requiring the preparation of a negative declaration concurred in by FHWA on February 8, 1977.

IM 50-1-70 Requirements:
1. State Clearinghouse---A-95 review approval dated September 8, 1976.

District 2 Clear
inclusion in Cra

FHPM 7-7-5 Requi
(a) Public Hear
(b) Location/De

NOTE:
1. This project
2. This project

Data for PR-37

Preliminary Engi

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Project

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FHWA on

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District 2 Clearinghouse-A-95 review satisfied by inclusion in Crag Tip FY77 annual element.

FHPM 7-7-5 Requirements:
(a) Public Hearings - None required under Oregon Action Plan
(b) Location/Design - Not a factor in the development of this project.

NOTE:
1. This project is in congressional District No. 3
2. This project is included in the Crag Tip FY 77 annual element.

Data for PR-37

Preliminary Engineering -- Field work	10,000
PS&E Preparation	5,000

8957

STATE OF OREGON

INTEROFFICE MEMO

TO: E. S. Hunter
Deputy State Highway Engineer

DATE: February 17, 1977

FROM: L. W. Rutzen
Program Management Engineer

SUBJECT: PROJECT ASSESSMENT
Lawnfield Rd.-Clackamas Highway
Highway 212 to Lawnfield Rd.-
SE 8nd Drive
Clackamas County

Attached for your information is an assessment, concurred in by the Federal Highway Administration.

Program Management classifies this section as a Category 3 project of MAJOR NON- action. SIGNIFICANT

Your approval will place this project in our Project Management System and allow its development in accordance with Action Plan procedures.

BLG:dpy

Attachment

cc: J. B. Boyd (3)
L. E. George
W. J. Hart
C. T. Keasey
J. M. Versteeg (4)
F. E. Terpin (2)
G. A. Potter (2)
George Bell
R. E. Royer
Surfacing Design - Lab Bldg.
B. L. Gifford
RegionMetro: R. N. Bothman
District 2 : W. W. Geibel
Region 1 Geologist: Dan Gano

E71
STATE HIGHWAY
Date 2-16-77

RECEIVED
STATE HWY ENGR
FEB 15 '77
REFER TO
FOR
Info. | Lanes | R/D | D/R | Sign | Act | File

81-125-1307

5957

Form FHWA 121 (Rev. 5-73)

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
Box 300
Salem, Oregon 97308

DATE: February 8, 1977

In reply refer to: 1041A.1

SUBJECT: Oregon Project M-9653(-)
Lawnfield Rd.-Clackamas Hwy.
Project Assessment
Clackamas County

FROM : G. L. Green, Division Administrator

TO Mr. H. S. Coulter, State Highway Engineer
Salem, Oregon

The subject project assessment submitted with Mr. Rulien's 1-27-77 letter has been reviewed.

We concur with your finding that the proposed project constitutes a major action requiring the preparation of a negative declaration.

The proposed standards, design and other specific details contained in the assessment will be subject to future reviews at the appropriate stage during the project development.

William L. Kappus
for G. L. Green

cc:
OSHD (Potter)
" (Laux)
" (Region 1, Markham)

RECEIVED
STATE HWY ENGR
FEB 14 '77
REFER TO
FOR
Info | Invest | R/D | D/R | Spec | Init | File

8957

Form [illegible] (Rev. 9-71)

FAUS
Clack Co.

OREGON STATE HIGHWAY DIVISION

AUTHORITY FOR SURVEY

Section Highway 212 - Lawnfield Rd.

Highway SE 82nd Drive

County Clackamas

Date January 27, 1977

Authorization No. 1

Survey Prefix 303-1938 (Assigned by Salem office)

Description of termini, route, length, etc.: The northerly terminus is at Lawnfield Road north of the community of Clackamas. Then southerly along SE 82nd Drive through Clackamas to the southerly terminus at the intersection with Highway 212. Total length: 4300 feet, (0.8 mile).

Purpose of survey: Complete a location survey, prepare maps, plans and specifications for widening of SE 82nd Drive.

M-9653(1)

FAUS '77FY
TIP P.42

Estimate of cost:

Field Survey	(901)	8,000
Citizen Participation	(902)	
City or County	(903)	
Consultant	(904)	
Final Design	(905)	2,000
Bridge Design	(906)	
Preliminary Design	(907)	
R/W Descriptions	(909)	
Soils & Geology	(910)	2,000
Traffic	(911)	
Landscape	(912)	
Liaison	(913)	500
Utility	(914)	500
Photogrammetry	(916)	
Location Studies	(918)	
Engr. Graphics	(919)	
Office Engineer	(920)	
Specifications	(921)	1,000
Environmental	(923)	1,000
Planning	(924)	
Foundation Exploration	(926)	
Seminars	(950)	
Hearings	(980)	
Equal Opportunity	(985)	
Advisory Committees	(986)	

INSTRUCTIONS

Submit four copies to Salem. After approval by the Assistant State Highway Engineer, one copy will be sent to the Regional Engineer and one copy to the Resident Engineer.

This form does not constitute authority for making survey until approved and returned

Submit separate order for each survey.

Total estimated cost of survey	$ 15,000
Previous authorization	
Additional authorization requested	
Additional authorization approved (Salem)	
Total all authorizations approved (Salem)	

Requested made by: [signature] Field Engineer

Recommended for Approval: [signature] Regional Engineer

Recommended for Approval: [signature] Location Engineer

Approved: [signature] Deputy Assistant State Highway Engineer

OFFICE ENGINEERING SECTION
P. E. APPR. 3-17-77
FED. AID FAUS STATE

NOTED
MAINOR C. HOLMES

SP*23004-734

8457

January 13, 1977

Clackamas County
Public Works Department
902 Abernethy Road
Oregon City, OR 97045

MISC. CONTRACTS and AGREEMENTS No. 5939

Gentlemen:

Attached for your records is a fully executed copy of an urban system construction-finance agreement covering the Lovefield Road-Highway 212 Section of 82nd Drive.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Very truly yours,

C. W. Read
COMMISSION SERVICES

jm

Att.

cc Don Harwell (agree. att.)

8957

F-115

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Portland, OR. 97213

November 19, 1976

FILE: Unnumbered
9653

FROM: JON ROSE
Federal Aid Engineer

TO: GEORGE HOPKINS
Local Government Programs Engineer

SUBJECT: Returned Agreement
Lawnfield Road-Highway 212 Section
82nd Drive
Clackamas County

When Clackamas County originally requested the 82nd Drive FAU project, it was the county's intent to perform preliminary engineering, but changing conditions have made the county reconsider this and it now wishes to have engineering performed by the Highway Division.

The attached November 16 letter from Winston Kurth details the changes in the agreement which the county would like to see made. Would you have a new agreement prepared to incorporate the requested changes so that I can resubmit it to the county for signature.

ldo

Attachments

cc: Region 1

Agreement Revised
& Returned to GEG

RECEIVED
COUNTY & CITY SECTION
NOV 22 1976
☐ ENGR. ☐ CONST. ☑ DE ☐ AE ☐ DE
☑ RPE ☐ DE ☐ RE ☐ RPE ☐

PROJECT MANAGEMENT
NOV 22 '76
REFER TO:
FOR

8957

DEPARTMENT OF PUBLIC WORKS
COUNTY OF CLACKAMAS

JOHN C. McINTYRE
DIRECTOR

WINSTON W. KURTH
County Engineer

DAVID J. ABRAHAM
Utilities Director

RICHARD L. DOPP
Development
Services
Administrator

November 16, 1976

RECEIVED
COUNTY & CITY SECTION
NOV 22 1976
☐ ENGR. ☐ COOR. ☐ OE ☐ AE ☐ DE
☐ DPE ☐ CE ☐ RE ☐ RPE ☐

ME PE PR1 PR2 DE
O.S.H.D. - METRO
NOV 18 1976
OE FILE T/A

Jon Rose
Federal Aid Engineer
Metropolitan Section
Oregon State Highway Division
5821 N. E. Glisan Street
Portland, OR 97213

Please find enclosed four copies of an agreement relating to the 82nd Drive Federal Aid project on Urban Route No. 9653. Clackamas County requests the following modifications to this agreement.

1. The OSHD is requested to formulate preliminary design plans and prepare any proposed special provisions and specifications and perform all other necessary field phases of the preliminary engineering. Clackamas County will be responsible for the rough draft of any necessary preliminary environmental impact statements that would be required for this project and hold any necessary public hearings relating to the Oregon Action Plan. It is also requested that traffic signs and striping be authorized by County forces, with reimbursement from project funds.

   This change would eliminate Item 2 under "Things to be Done by the County", since the State would be conducting all necessary preliminary engineering work. This change would, also, I believe, eliminate Item 5 under "Things to be Done by the County".

2. Clackamas County would also request that the Oregon State Highway Department be in charge of the contract activities and perform the construction engineering for the project.

   This, in effect, would move Item 8 from "Things to be Done by the County" to "Things to be Done by the State".

902 ABERNETHY ROAD, OREGON CITY, OREGON 97045 (503) 655-8521

3. As a last item, in reviewing the agreement, I can see no place where it mentions the County's requirement to provide a seven (7) percent match which relates to the total estimated cost of the project. Under "Things to be Done by the County", Item 7 is a new phraseology that I haven't seen in any other Federal Aid Urban agreements. I have some uncertainty as to its exact meaning. In previous agreements there have been statements to the effect that the County would provide a local match consisting of a certain percentage of the project, which is presently 7 perdent, with qualifying statements to the effect that costs not eligible for Federal funding would be borne 100 percent by the County. Further, that cost overruns beyond that which were obligated would be shared on a 50-50 basis between the State and the County. I assume this new wording is intended to mean the same thing, however, I must admit it is somewhat confusing.

A modification of the agreement as outlined above and a satisfactory explanation of Item 7 or a revision of the Item would result in an acceptable agreement to Clackamas County.

JOHN C. McINTYRE - Director of Public Works

By Winston W. Kurth

WINSTON W. KURTH - County Engineer

/mak

Enclosures: 4

cc: D.E. Swan

5957

OREGON STATE HIGHWAY DIVISION

ROBERT W. STRAUB
GOVERNOR

F. B. KLABOE
Administrator and
State Highway Engineer

MCH:sch ia

bc R. A. Burco
C. W. Head
F. B. Klaboe
E. S. Hunter
R. L. Schroeder
R. N. Bothman
W. E. Schwartz
E. L. Hardt
L. W. Rulien
L. E. George
V. E. Skoog
D. N. Harwell
George Bell

DATE: October 18, 1976

TO: Oregon Transportation Commission

FROM: ORIGINAL SIGNED BY H. S. COULTER
H. S. Coulter
State Highway Engineer

AGENDA
OCT 26 1976
I C.

SUBJECT: Federal-Aid Urban System Project Requests

Presented for your consideration at the October 26 meeting will be four requests for approval of Urban System Projects.

The City of Baker has requested a project, estimated to cost $102,500 to improve sections of Auburn and Washington Avenues.

Clackamas County is requesting a project, estimated to cost $288,000 to widen S.E. 82nd Drive to accommodate four lanes of traffic between Lawnfield Road and the Clackamas Highway.

Multnomah County has requested two projects. One is for widening East Burnside Road to four lanes, from Stark Street to Bull Run Road, at an estimated cost of $2,585,000. The second project is to construct an off-ramp from the Sellwood Bridge to Macadam Avenue for the purpose of reducing conflicting turn movements. Cost of this work is estimated at $370,000.

Federal Urban System funds for these four projects is estimated at $2,877,130 with the State providing approximately $234,185 in match funds and an equal amount being contributed by the local entities of government.

These projects have been investigated and are eligible for funding under the Federal-Aid Urban System Program. I recommend your approval of these projects and request authority to sign the project agreements for and on your behalf.

Att.

CLACKAMAS COUNTY
Proposed Urban System Project

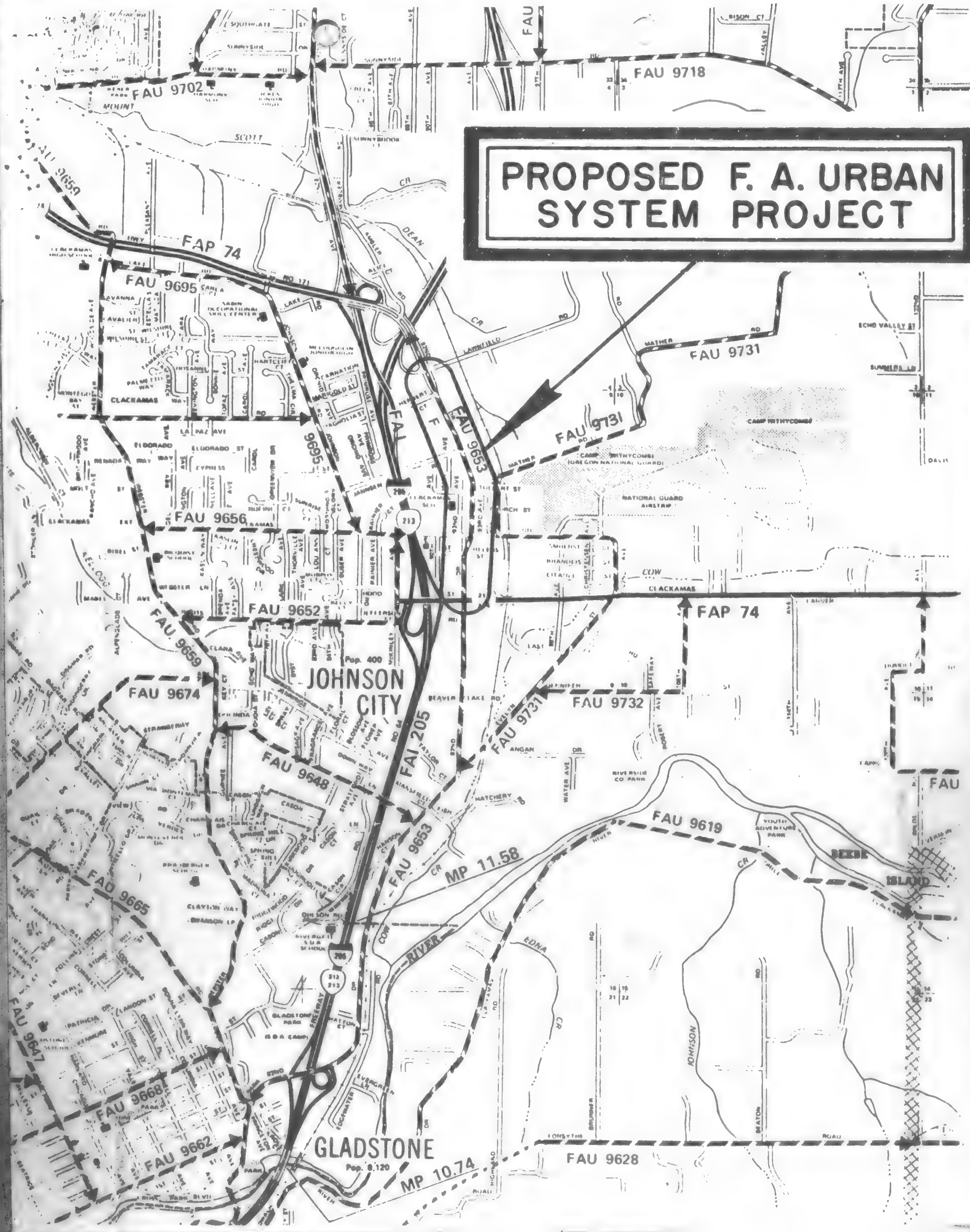
Lawnfield Road-Highway 212 Section
82nd Drive, FAU 9653
Grade, Pave, Curbs, Sidewalks
0.82 mile
$288,000

Widen existing roadway pavement to 48 feet to accommodate four moving lanes of traffic, install curbs and sidewalks, improve drainage.

Clackamas County will perform preliminary and construction engineering.

76-J
10/15/76

PROPOSED F. A. URBAN SYSTEM PROJECT



Rev. 6/5/72

8957 10-13-76

FEDERAL AID URBAN SYSTEM PROJECT REQUEST

NOTE: This form is intended to collect general information for proposed projects so that the State and Federal Highway Administration will have a better understanding of the requested project. Please use the footnote area to answer any ambiguous questions or to explain any unusual conditions.

Date _____

Applicant Agency Clackamas County 9653

Federal Aid System Route No. FAU ~~6415~~ Route Name S. E. 82nd Drive

Project Name S. E. 82nd Drive - Highway 212 to Lawnfield Road

Project Length 4300 feet Project Location (Attach sketch map) ?

Project Description Widen existing roadway pavement to 48 feet to accommodate 4 moving lanes of traffic, install curbs and sidewalks, improve drainage.

Average Daily Traffic 8400 VPD Design Speed 35 MPH

Complete Applicable Sections:

I. ROADWAY DATA

1. Existing Roadway: (Attach sketch) ?

Width 30 feet Travel Lanes 2 Shoulders 6 feet (gravel)
Medians None Parking No Restrictions
Sidewalks None
Other 48 feet roadway sections completed at Highway 212 on the south end and on Lawnfield Road on the North end.

2. Desired Roadway Cross Section: (Attach sketch) ?

Width 48 Travel Lanes 4 @ 12 feet Shoulders None
Medians None Parking None
Curbed Yes Length Curb Radii 20 feet
Sidewalk/Bikeway Sidewalks
Other Project termini to match 48 feet curbed sections at Highway 212 on the south and at Lawnfield Road on the North.

FOOTNOTES: _____

Description of Proposed Roadway Work Improve drainage, fill ditches, widen pavement, install curbs and sidewalks.

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OCT 8 - 1976
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☐ UPE ☐ CE ☐ RE ☐ RPE ☐

II. RIGHT-OF-WAY DATA

1. Existing Right-of-Way:

General Width 60 feet Minimum 60 feet Maximum 60 feet

2. Will Additional Right-of-Way Be Needed? No Explain Roadway and curbs/sidewalks can be constructed within existing right-of-way limits.

3. Will cost of additional right-of-way be included in project or will applicant acquire without cost to project? Not applicable

4. Will applicant acquire right-of-way and have State review negotiations?
Yes _____ No X

5. Should State negotiate and acquire right-of-way in behalf of applicant?
Not Applicable

6. Should State prepare options? Yes _____ No X

7. Is a public hearing necessary? No
(NOTE: If additional right-of-way is needed, or the improvement would have an adverse effect upon abutting real property, or if the layout or function of the facility or connecting streets or roads would be changed, an opportunity for a hearing must be afforded.)

8. Will there be any persons displaced from their homes, farms or business?
No If so, explain _____
(NOTE: No property owner shall be required to move from his home, farm, or business without at least 90 days' written notice prior to the intended vacation date.)

9. Will this project affect any park or recreation facility? No
If so, explain _____

XII. TRAFFIC CONTROL DATA

1. Existing Signalization:

Traffic signals located at the north and south termini. No signalization within project.

2. Proposed Signalization:

Location Not Applicable.

Type _____

Phases
Type of Suspension
Interconnected
Other

FOOTNOTES:

3. Permanent Signing:

Include in project or by applicant? In Project

4. Permanent Striping:

Include in project or by applicant? In Project

IV. ILLUMINATION DATA

1. Present Illumination and Location:

Limited - various locations within project

2. Proposed Illumination:

Location No additional illumination requested.
Type

V. STRUCTURE DATA

1. Existing Structure:

Location Not Applicable
Type

Size
To Remain in Place?

2. Proposed Structure:

Location Not Applicable

Is a particular type of structure and design desired?

Approximate size of proposed structure_____

Are sidewalk/bikeways desired?_____

Are any utilities to be attached to structure?_____

FOOTNOTES:_____

Are provisions for illumination desired?_____

Are there any unusual or complicating conditions?_____

VI. RAILROAD DATA

1. Are there any railroad crossings? No Location_____

Type of existing crossing_____
Existing crossing protection_____

Name of Railroad_____
Number of Tracks: Mainline_____ Siding_____ Total_____
Angle of Intersection_____
Sight Distance: (Direction)_____ Distance_____
(Direction)_____ Distance_____
Number of Trains: Passenger_____ Speed_____
Freight_____ Speed_____

2. Will existing railroad crossing be altered?_____

VII. ACTION PLAN REQUIREMENTS

During project development for Category 1, 2, and 3 projects, the city or county shall perform and document responsibilities as found indexed on pages 51 and 52 of the Oregon Action Plan, particularly Citizen Involvement and Participation; Environmental Aspects; and Public Hearing Requirements.

The OSHD Region Engineer will provide assistance, liaison and monitoring for these activities.

Responsible local office and party to be contacted for the following activities:

1.	Citizen Involvement	Traffic Engineering - Mr. Bernard L. Straight Office
2.	Environmental	Traffic Engineering - Mr. Bernard L. Straight Office
3.	Public Hearing	Traffic Engineering - Mr. Bernard L. Straight Office

REMARKS: _____

VIII. GENERAL INFORMATION

1. Other work or conditions not covered by preceding sections _____

2. Does the applicant desire to perform the project preliminary engineering?
Yes X No _____

Does the applicant desire to perform the project construction engineering?
Yes X No _____

(NOTE: Utilization of local forces to perform preliminary and construction engineering requires the prior approval of the State and Federal Highway Administration. In all instances, State will prepare final plans, advertise, and award project contracts.)

3. Applicant's Estimate of Cost for Requested Project:

Roadway Work	$ 272,000.00
Right-of-Way Costs (if participating)	
Traffic Control	1,000.00
Illumination	
Structures	
Railroad	
Other _____	
Preliminary Engineering	15,000.00
PROJECT TOTAL	$ 288,000.00

FOOTNOTES: _____

THIS APPLICATION IS AN OFFICIAL REQUEST FROM:

City of _____ and/or Clackamas County

By _____ By _____

By _____ By _____

By _____

TRANSPORTATION IMPROVEMENT PROGRAM

PROJECT SUMMARY

APPLICANT AGENCY Clackamas County
ROUTE NAME S.E. 82nd Drive FAU NO. 0415
PROJECT TITLE S.E. 82nd Drive Highway 212 to Lawnfield Road
PROJECT LENGTH 4300 Feet PROJECT LOCATION Between Highway 212 and Lawnfield Road
PROJECT DESCRIPTION Widen roadway to 48 feet; install curbs and sidewalks; improve drainage.

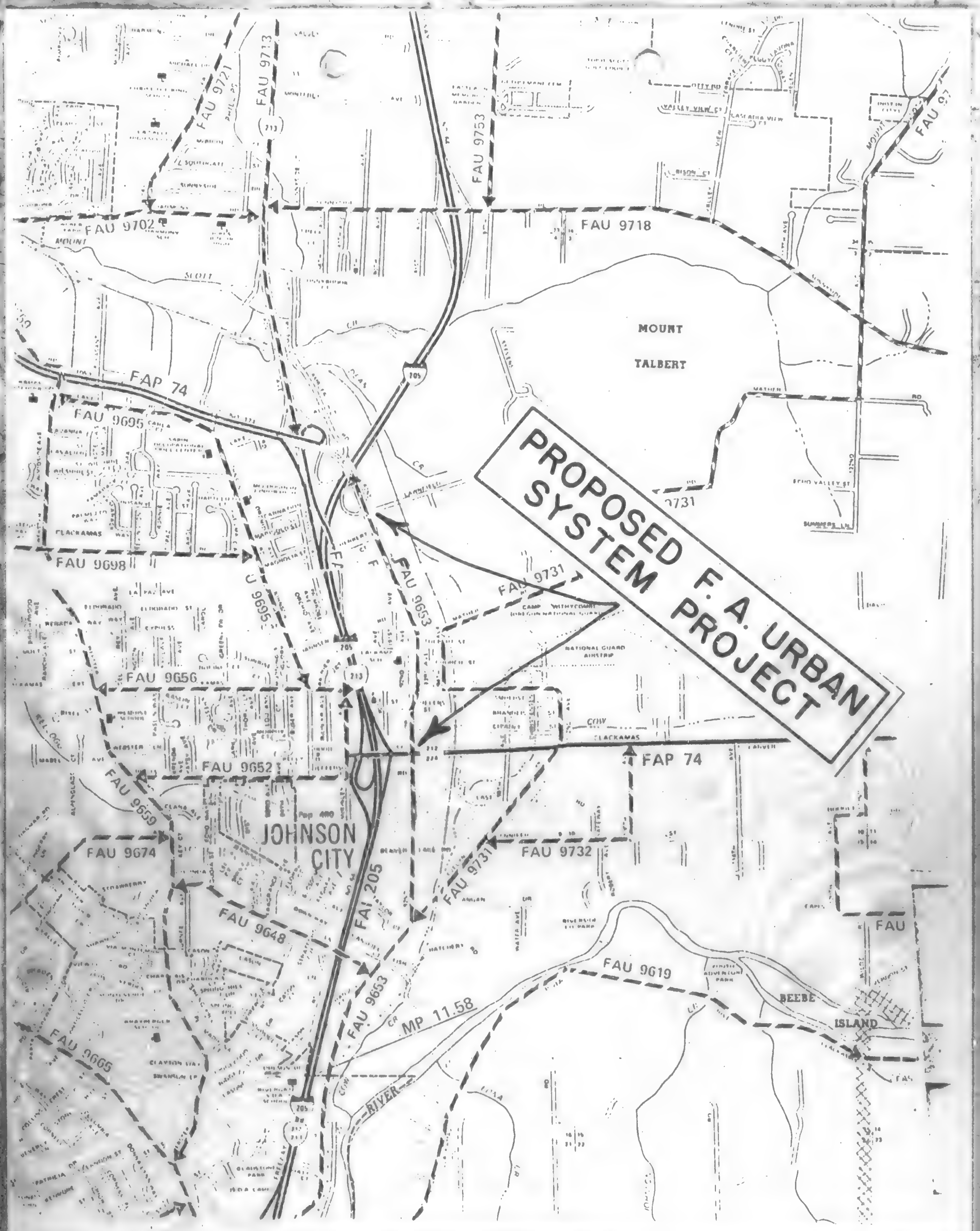
APPLICANT'S ESTIMATE OF PROJECT COST

ROADWAY WORK	$ 272,000.00
RIGHT OF WAY	-------
TRAFFIC CONTROL	1,000.00
ILLUMINATION	-------
STRUCTURES	-------
RAILROAD	-------
OTHER _____	-------
PRELIMINARY ENGINEERING	15,000.00
TOTAL	$ 288,000.00

SCHEDULE AND FUNDING PLAN

	FY 77	FY__	FY__	FY__	FY__	TOTAL
TOTAL	$ 288,000.00					288,000.00
FHWA	$ 224,600.00					224,600.00
UMTA	$ -----					-------
STATE	$ 31,700.00					31,700.00
LOCAL	$ 31,700.00					31,700.00
STATE BOND	$					
_____	$					

LOCATION:


PROPOSED F. A. URBAN SYSTEM PROJECT
FAU 9721
FAU 9713
FAU 9753
FAU 9718
FAU 9702
MOUNT
SCOTT
MOUNT
TALBERT
FAP 74
FAU 9695
FAU 9698
FAU 9731
FAU 9656
FAU 9652
FAP 74
FAU 9659
JOHNSON CITY
FAU 9674
FAU 9731
FAU 9732
FAI 205
FAU 9648
FAU 9653
FAU 9619
MP 11.58
BEEBE ISLAND
FAU 9665
RIVER

1979 Fox-Beech Cr. Summit — 8958
Sec. Pendleton-John Day
Hwy. (Paving)

1951

D C L

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

5 8 80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Hamilton Electric, Inc. No. 8814	Crater Lake Hwy. @ Spring St. & McAndrews Road (Medford)	April 10, 1980
Riverbend Const. Co. No. 8696	SW 29th St.-Pendleton/John Day Hwy. (Pendleton)	April 15, 1980
Morse Bros., Inc. No. 9007	Eddyville-Cline Mt.	April 18, 1980
Tice Electric Co. No. 8861	Farmington Hwy. @ SW 170th Ave.	April 18, 1980
Sims Electric of Medford, Inc. No. 8956	N. 6th St. @ "A" St. (Grants Pass)	April 22, 1980
D Mc D Corporation No. 8760	Oxbow Section	April 22, 1980
R. L. Coats No. 8953	Fox-Beech Cr. Summit	April 30, 1980
Baker Redi-Mix, Inc. No. 8907	Boot Hill Cemetery-Dog Creek	April 30, 1980
Tawn Mar Const. Co. No. 9066	Antone Junction	April 30, 1980
Jarl Const., Inc. No. 8639	Rhea Road Reloc. Unit, John Day Hwy.-Heppner Hwy.	May 7, 1980

May 8, 1980

C. T. Keasey
Asst. State Highway Engineer

8958

May 2, 1980

COM 5
#8958

Safeco Ins. Company
1500 S. W. 1st Avenue
Portland, OR 97201

Gentlemen:

Contract No. 8958 awarded to R. L. Coats for paving on the Fox-Beech Creek Summit Section of the Pendleton-John Day Highway in Grant County was completed on November 21, 1979 and accepted by the State Highway Division on April 30, 1980.

Final payment in the amount of $3,520.69 will be released to the contractor after May 7, 1980. The total contract amount is $1,339,321.81 and no work was performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

Robert W. Gorman
COMMISSION SERVICES

FKN/gnk

cc: R. L. Coats
63285 Skyline Ranch Rd.
Bend, OR 97701

bc: C. T. Keasey
Walt Hart
V. E. Skoog Attn: Dick Hacek
M. E. Schwartz

8758

28

ROAD DESIGN SECTION

Barry M. Hatcher
Resident Engineer
Fred Eriksen
Design Engineer Supervisor

March 6, 1980

Fox-Beech Creek Summit Section
Pendleton-John Day Highway
Grant County

The as constructed narrative for the project was of special interest to us at this time, as we are working on plans for another cement treated surfacing project.

The materials we will be treating may very possibly contain large material, as this job did, that will be hard on equipment. I was surprised by your comment that a 2-inch swell in the cement treated materials occurred. It doesn't seem that the addition of cement would swell the materials that much.

We took note of your comments on the smoothness of the cement treated materials. We will be calling for the paving to be accomplished in two lifts and will have some allowance for leveling, so hopefully a smooth ride can be obtained.

FEFik

cc: M. E. Schwartz

1 Versteeg
Anderson
Christensen
Olson
3 Sullivan
Terpin
Trout
Wakerlig

RECEIVED
MAR 06 1980
ROAD DESIGN SECTION

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Action

O.b

8958

Fox - Beech Creek Summit
Pendleton - John Day Highway
Grant County

2-15-70

Contract No. 8958
Prefix No. 12 - 1122
Contractor: R. L. Coats

5

Statement of Overruns & Underruns

	Original Contract	Final Amount	+ % -
Contract Amount	$ 1,446,090.00	$ 1,490,231.66	+ 3
Anticipated Items	48,000.00	0.00	- 100
Contingencies	67,252.05	0.00	- 100
Engineering	119,559.20	67,147.39	- 44
Sub-Total	$ 1,680,901.25	$ 1,557,379.05	
Price Reduction for non-Spec. A. C. Compaction:		$ 2,342.19	
Grand Total	$ 1,680,901.25	$ 1,555,036.86	- 7

Item #	Description	Unit	Contract Amount	Amount Used	% Overrun	% Underrun
4-	Temp. Signs	S.F.	448	364	0	19
	Due to expedience of the job and using of flagmen.					
5-	Temp. Barricades	Each	4	0	0	100
	Due to job planning - None required					
6-	Flagmen	Hour	1200	1475.5	23	0
	To maintain traffic control properly - more flagging was required					
7-	Pilot Car	Hour	300	412	37	0
	Same as Item # 6					
8-	General Excavation	Cu. Yd.	200	168.64	0	16
	Excavation was an estimate as it was for excavating pot holes					
9-	Aggregate Base	Ton	4,600	16,961.45	269	0
	Due to shape of shoulders and abrupt edge of new pavement the quantity was substantialy increased.					
11-	Cement for treated existing materials	Ton	2,300	1993.065	0	13
	Due to weight of the existing material, less cement required than estimated					
12-	Aggregate in Chip Seal	Ton	420	627.61	49	0
	More required to obtain adequate cover of the oil.					
15-	Class "B" A.C. in Leveling	Ton	7,750	9,139.525	18	0
	Due to the shape of the old surface, more was required to correct it					

Item #	Description	Unit	Contract Amount	Amount Used	% Overrun	% Underrun
16-	Asphalt Cement in mix	Ton	3,640	3,124.63	0	13
	Due to using a lower % Asphalt in Mix Design than estimated					
17-	Asphalt in Tack Coat	Ton	40	76.18	90	0
	Due to tack being used on old surface and patching as needed, more was required					
25-	Delineators	Each	400	581	45	0
	Due to installing at correct spacing, more were required					

BNH/hb

by K. L. Fordice

B. N. Hatcher
Resident Engineer

1 Versteeg ✓
Anderson
Christensen copy
Olson
Sullivan copy
Terpin
Trout
Wakerlig

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FEB 15 1980
ROAD DESIGN SECTION

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Action

8958

B

FORM 734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Fox- Beech Creek Summit		WEEK ENDING: 2-9-80
		SECTION PREFIX: 12-1122
HIGHWAY: Pendleton- John Day		COUNTY: Grant
NAME OF JOB: Fox- Beech Creek Summit	KIND OF WORK: Paving	
CONTRACTOR: R. L. Coats	CONTRACT NUMBER: 8958	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: June 12, 1979	DATE WORK STARTED: July 16, 1979	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: SUPERVISION:	SPECIFIED WORK DAYS: 270	WORK DAYS USED: 152
	SPECIFIED CALENDAR DAYS:	CALENDAR DAYS USED:
	SPECIFIED COMPLETION DATE:	PERCENT OF TIME ELAPSED: 56
PROJECT AUTHORIZATION: $1,681,301.25		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $1,561,742.05	ENGINEERING AUTHORIZATION: $119,559.20	
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $1,494,752.05	ENGINEERING COST TO DATE: $67,147.39	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION:
ESTIMATED PERCENT: ~~OVERRUN~~ UNDERRUN: 5 %	PERCENT OF AUTHORIZATION: 56 %	DATE PROJECT WAS COMPLETED: November 21, 1979

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
			100	100			

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT		4.42			12.6
MILES PARTIALLY COMPLETED					
MILES COMPLETED		4.42			12.6
TOTAL ESTIMATED QUANTITIES (CONTRACT)		75,000 SY			56,000 T
TOTAL QUANTITIES CORRECTED TO DATE		75,000 SY			56,000 T
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE		74,000 SY			55,760 T
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY				
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

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FEB 11 1980
CONSTRUCTION BRANCH

Keeney, Jackmond, Hopkins, Williams, Johnson, Glenn, Richards, Berg, Inlow, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	CONTRACT WORK COMPLETED
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

Semifinal submitted. Final Report.

RECEIVED
FEB 11 1980
CONSTRUCTION
BRANCH

SIGNED B.N. Hatcher LOCATION Burns
B.N. Hatcher, Resident Engineer
by: H. Christenson

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BOTH ARE INVOLVED SUBMIT 3 COPIES

SP-F210

875

28

STATE OF OREGON

INTERCE MEMO

TO: Mr. D. O. Christensen
Final Design Engineer

DATE: May 4, 1979

FROM: J. E. Backstrand
Supervising Structural

SUBJECT:
Smith Creek Bridge
Fox Creek Bridge
Fox-Beech Creek Summit Sec.
[redacted] John Day Highway
Grant County
Bridges 6204 and 6205

It is recommended that no additional overlay be placed on the Fox Creek Bridge. The present AC wearing surface on Smith Creek Bridge should be removed and replaced with two inches of overlay. No membrane or other work on the structures is anticipated at this time.

JEB:dh

cc W. E. Schwartz
George Hopkins
Jack Sullivan

Versteeg
Anderson
Christensen
Olson
Sullivan
Terpin
Trout
Wakarlic

RECEIVED
MAY 07 1979
ROAD DESIGN SECTION

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REFERRED TO
Board, Freudenmeyer, Cole, Semple, Eriksen, Watson, Hager, Dorn, Lee
Return Discuss Do File Copy Dup.
BY FINAL DESIGN ENGINEER

RECEIVED
MAY 7 1979
BRIDGE SECTION

81-125-1387

8958

28

Salem, Oregon
April 25, 1979

Fred Eriksen
Fred Eriksen
Design Engineer Supervisor

Leonard L. Wallace
Bridge Design Engineer

Fox-Forest Boundary Section
Pendleton-John Day Highway
Grant County
M.P. 98.0 to M.P. 110.58
Prefix 12-1418

This is a State funded overlay project presently scheduled for a June 7, 1979, contract letting.

The contract work involves restoration of sections of roadbed and a 4-inch Asphalt concrete pavement overlay, 28 feet wide.

There is one bridge in this section at Beech Creek, M.P. 110.20. The Bridge, No. 3553, is RCDG and has one inch of A.C. on the deck according to the Bridge Log.

Please review the structure and determine what treatment, if any, should be included in this project.

This letter is confirmation of my verbal request to Mr. Backstrand for this information.

Please furnish the data by April 27, 1979, for inclusion in the plans.

FE:cj

Versteeg
Anderson
Christensen
Olson
Sullivan
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RECEIVED
APR 25 1979
ROAD DESIGN SECTION

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Bring Up ___/___/___
Action

.1979 Lexington-Bomb. Ra. 8959
.Rd. Lex.-Echo & Lex.- Pieper
.Can. Rd. Heppner Hwy.(Gr,Pav)

8158

October 5, 1981

Pendleton-Heppner Freight Lines, Inc.
P. O. Box 397
Lexington, OR 97839

CON 5
#8959

Gentlemen:

Thank you for your letter of September 28 stating that Mid-Oregon Crushing has paid all freight bills to you along with Peter Kiewit & Sons.

This appears to be in reference to a claim filed by you in May of 1980 against Peter Kiewit Sons' Co. on Contract No. 8959 for work on the Lexington-Bombing Range Road Section of the Lexington-Echo Highway and Lexington-Pieper Canyon Road Section of the Heppner Highway.

This information is being noted in our records and we will notify the contractor and his surety.

Sincerely,

Robert W. Corrigan
[illegible]

jm
cc: Peter Kiewit Sons' Co.
215 South "V" Street
Vancouver, WA 98663

The Aetna Casualty & Surety Company
300 Market Building, Suite 1500
200 S.W. Market Street
Portland, OR 97201

NOTED ON CHRON
JS 10-5-81

September 28, 1981

State Transportation Bldg.
R. W. Gormsen Mgr.
Commission Service
Room 121
Salem, Oregon 97310

Dear Mr. Gormsen,

This is to notify the state that Mid-Oregon Crushing has paid all Freight bill to Pendleton-Heppner Freight Lines, along with Peter Kiewitt & Sons. I do have one outbound for Peter Kiewitt & Sons, but have not been able to bill, because I do not have the charges. Thank you for your cooperation.

Dona Orwick

Dona Orwick

Pendleton-Heppner Freight Lines, Inc.
P O Box 397
Lexington, Oregon 97839

cc: Peter Kiewit Sons'Co.
215 South "V" Street
Vancouver, WA 98663

RECEIVED
SEP 30 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

8159

Robert W. Gormsen
Commission Services
Department of Transportation
Transportation Building
Salem, Oregon 97310

Wausau Insurance Companies

2000 Westwood Drive • Wausau, Wisconsin 54401
(715) 845-5211

Jerry M. Healy
Assistant Office Manager
Columbia Basin Electric Co-op, Inc.
Box 398
Heppner, Oregon 97836

August 11, 1981

Claim Number 68-OBSV
Bond Number 2350-08-034063
Principal -- Mid-Oregon Crushing and
Phillip Dahl, A Joint Venture
Obligee - Peter Kiewit Sons Company
Project - Lexington Job Number 6052,
Oregon State Highway Division
Contract Number 8959

COPY

EMPLOYERS INSURANCE OF WAUSAU A Mutual Company, as subcontract Surety for Mid-Oregon Crushing Company, acknowledges receipt of your letter of claim dated July 2, 1981.

Recent information acquired from our principal indicates that payment of your bill totaling $1,754.92 will be paid shortly. I would greatly appreciate confirmation upon receipt of payment from our principal.

James Taylor
Surety Claim Attorney
MO 45

RECEIVED
AUG 14 19[illegible]
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

no response necessary

8959 5020

L

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

RECEIVED
JUL 20 1981
NORMA PAULUS
SECRETARY OF STATE

July 17, 1981

IN REPLY REFER TO
FILE NO.:

FILED
JUL 20 1981
NORMA PAULUS
SECRETARY OF STATE
CON
#8959

Columbia Basin Electric Cooperative, Inc.
Box 398
Heppner, OR 97836

Attention: Jerry M. Healy
Assistant Office Manager

Gentlemen:

This will acknowledge receipt of your letter of July 2, 1981, indicating that you provided electric service for rock crushing and hot mix plant in the amount of $1,754.92 in connection with Contract No. 8959.

The claim states this is in reference to the Peter Kiewit Sons' Company Contract No. 8959 for work on the Lexington-Bombing Range Road Section of the Lexington-Echo Highway and the Lexington-Pieper Canyon Road Section of the Heppner Highway in Morrow County.

The Aetna Casualty and Surety Company furnished the bond on this contract. We will advise the surety and the prime contractor of the receipt of this claim. We will also file it with the Secretary of State.

Please notify this office when payment has been received.

Sincerely,

Robert W. Corrsen
COMMISSION SERVICES

NOTED ON CARD
1-28-81
jp

jas
cc: The Aetna Casualty & Surety Co.
200 Market Building, Suite 1500
200 S. W. Market Street
Portland, OR 97201

RECEIVED
JUL 21 1981
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

Peter Kiewit Sons' Co.
215 South "V" Street
Vancouver, WA 98663

bc: Secretary of State - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

Columbia Basin Electric Co-op. Inc.

SERVING AREAS IN MORROW, UMATILLA, WHEELER, SHERMAN AND GILLIAM COUNTIES

BOX 398 · HEPPNER, OREGON 97836

Phone 676-9146

July 2, 1981

Mr. Robert Gormsen
Dept. of Transportation
DOT Building
Salem, OR 97310

Dear Sir:

This letter is a follow-up of our conversation of 7/2/81. The information you requested is as follows:

1) Job name: Lexington Bombing Range Road grading and repaving, Morrow County, Oregon.
2) Job number: #8959
3) Contractor: Peter Kiewit Sons Co.
4) Sub-contractor: Mid-Oregon Crushing, 70 S. E. Anne Rd., Bend, Oregon 97701
5) Service provided: Electric service for rock crushing and hot mix plant.
6) Amount of bill outstanding: $1,754.92
7) Date of disconnect: 1/22/80

We wish to thank you in advance for any help you may provide. If you need any more information, please call. Thank you,

Sincerely,

Jerry M. Healy

Jerry M. Healy,
Assistant Office Manager
COLUMBIA BASIN ELECTRIC COOPERATIVE, INC.

JMH/klp

8959

DATE: February 9, 1981

TO: Oregon Transportation Commission

FROM: H. S. Coulter
State Highway Engineer

SUBJECT: Request for Increase in Project Authorization
Lexington-Bombing Range Rd. & Lexington-Piper Canyon Rd.
Morrow County
Contract No. 8959

This State financed grading and paving project has been completed and the final costs reveal the need for an increase in the project authorization.

The base design for a portion of project was modified to provide cement treating of the total roadbed width. This revision increased the contract cost by $198,530. The asphalt escalation item was also $95,000 greater than originally estimated. These increases were partially offset by $44,200 under in engineering and the $96,186 in contingency funds authorized.

It is recommended that the authorization for this project be increased by $122,762 (5.1 percent) to a new total of $2,527,419. This matter will be on the consent calendar for your February meeting.

bc F. B. Klaboe
R. W. Gowman
C. T. Kaasey
V. E. Skoog
W. E. Schwartz
George Bell

#5957

L

STATE OF OREGON

INTEROFFICE MEMO

FILE: CON 5 #8959

TO: H. S. Coulter
State Highway Engineer

DATE: February 6, 1981

FROM: for O. B. Jackmond
Contract Administration Engineer

SUBJECT: Request for Increased Project Authorization
Lexington-Bombing Range Road and
Lexington-Pieper Canyon Road
Morrow County
Contract No. 8959

This State financed grading and paving project has been completed and the final prefix charges show that the authorized amount was exceeded by $122,762, or 5.1%.

Price Agreement No. 1 modified the base design of a 0.88 mile section by cement treating the total roadbed width. The work was paid for under bid items 14 and 15 which were overrun by a total of $198,530.

An Expected Overrun of Project Authorization form had been submitted last spring, but a review of the estimated costs at that time indicated the project would overrun by less than 5 percent. The final estimate figures now reveal that asphalt cement adjustment costs were $35,000 greater than previously estimated and $95,000 greater than anticipated in the project authorization.

A rough draft letter to the Transportation Commission is attached as is a copy of the Expected Overrun of Project Authorization form.

NOTED
H.S.COULTER

OBJ:WR:fr

Att.

cc: W. E. Schwartz
Bobby Johnson
Robert Church

RECEIVED
STATE HWY ENGR
FEB 6 '81
REFER TO
FOR
Maint. | Invest. | R/D | B/R | Sign. | Traf. | Eq.

O&M

November 25, 1980

Peter Kiewit Sons' Company
One Thousand Kiewit Plaza
Omaha, Nebraska 68131

OSM 3
#8959

Attention: Bruce Simmons
Counsel

Gentlemen:

Thank you for your letter of November 12 with a letter from Albert R. McAtee of Superior Asphalt & Concrete Company rescinding the claim for equipment rental made on May 1, 1980.

This claim was in connection with the Peter Kiewit Sons' Company Contract No. [illegible] for work on the Lewiston-[illegible] Road Section of Lewiston-Troy Highway and the [illegible]-Palmer Curves Road Section of the Kamiah-Lenore [illegible] Highway. The claim was in the amount of $[illegible],201.98 plus interest.

We will notify your surety on this contract that this claim has been released.

Sincerely,

Robert M. Gannon
Commercial Services

dmg

cc: The Aetna Casualty & Surety Co.
[illegible]
Portland, OR 97201

Superior Asphalt & Concrete Co.
P. O. Box [illegible]
Yakima, WA 98909
Attn: Albert R. McAtee, President

NOTED ON LAND
11-25-80 dmc

PETER KIEWIT SONS' CO.
CONTRACTORS

ESTABLISHED 1884

Telephone
(402) 342-2052

One Thousand Kiewit Plaza
Omaha, Nebraska 68131

TWX
9106220292

November 12, 1980

Oregon Department of Transportation
Attention: Robert W. Gormsen, Commission Services
Transportation Building
Salem, Oregon 97310

Re: Notice of Claim
Albert E. DeAtley and Brian Sims v.
Mid-Oregon Crushing, Inc. and Phillip
Dahl, AJV; Contract No. 8959 - Lexington

Dear Mr. Gormsen:

Enclosed is a letter we have received from Mr. DeAtley releasing all claims for labor, materials or equipment rental furnished to Mid-Oregon Crushing/Phillip Dahl for the referenced project. Please acknowledge release of the Notice of Claim filed with the Department on behalf of DeAtley and Sims on May 1, 1980.

Very truly yours,

PETER KIEWIT SONS' CO.

Bruce Clawson

Bruce Clawson
Counsel

BAC:nw

Enclosure

ccs: Mid-Oregon Crushing Co.
P.O. Box 519
Redmond, Oregon 97756

DeAtley & Sims
P.O. Box 10268
Yakima, Washington 98909

Ronald M. Somers
Attorney at Law
106 East 4th Street
The Dalles, Oregon 97508

Employers Mutual Liability
Insurance Company of Wisconsin
Suite 350, Market Building
200 Market Street
Portland, Oregon 97201
(Re: Bond No. 2350 07 034063C)

Lyle Leach, Vancouver

Mike O'Leary, Vancouver

RECEIVED
NOV 17 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

SUPERIOR ASPHALT & CONCRETE CO.

248-6823 – P. O. BOX 1069 – YAKIMA, WASHINGTON 98907

October 29, 1980

Peter Kiewit & Sons
Attn: Mike O'Leary
P.O. Box 1777
Vancouver, WA 98668

Re: Lexington Job - Oregon State Highway Dept.

Dear Mike:

This letter is a follow up of the conversation we had this date to the situation of Mid-Oregon Crushing and Superior Asphalt & Concrete Co., Brian Sims/Al DeAtley partnership.

As I stated this morning, Mid-Oregon Crushing does not owe any money to us on the above-referenced project. Consider this letter to rescind any and all claims by Superior Asphalt & Concrete Co. and/or DeAtley/Sims partnership for materials and/or labor, or equipment rental on this job.

Thank you for your help in this matter.

Very truly yours,

Albert E. DeAtley
President
Superior Asphalt & Concrete Co.

AED:dj

RECEIVED
NOV 17 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

11 - 10 - 8

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Wildish Corvallis Construction Co. No. 9011	Talbot Rd.-Santiam River (Jefferson) Marion County	October 9, 1980
Willamette-Western Corp. No. 8998	Haines Rd.-Molalla River (Canby) Clackamas County	October 13, 1980
Western Bridge, Inc. No. 9126	Ames Creek (Sweet Home) Linn County	October 15, 1980
Peter Kiewit Sons' Co. No. 8959	Lexington-Bombing Range Road & Lexington-Pieper Canyon Road Morrow County	October 17, 1980
Fabricators, Inc. No. 9157	Libby Drive-Tarheel Creek Coos County	October 17, 1980
Hensel Phelps Const. Co. No. 8795	UPRR 2nd St. O'Xing (LaGrande) Union County	October 23, 1980
Hamilton Electric, Inc. No. 8940	Halsey St. @ 223rd Ave. (Fairview) Multnomah County	October 23, 1980
Hamilton Electric, Inc. No. 8837	Pac. Hwy. W. @ McDonald St.(Tigard) Washington County	October 23, 1980
Traffic Marking Spec. No. 9156	Coquille & Myrtle Point Pavement Marking Coos County	October 24, 1980
Hoberg Const., Inc. No. 9128	N. Tigard Intchge.-SW Beef Bend Rd. (Tigard) Washington County	October 27, 1980
Bracelin-Yeager Excav. & Trucking No. 9137	Newmark Ave.-Ocean Blvd. (Coos Bay) Coos County	October 27, 1980
Gervais Const. Co. No. 8817	Silver Falls State Park Marion County	October 30, 1980
C.W. McCallen Const. Co. No. 9124	Ferguson Rd.-Tekampe Rd. Deschutes County	October 30, 1980
Baker Redi-Mix, Inc. No. 9139	UPRR X'ing-LaGrande/Baker Hwy. (Baker) Baker County	October 30, 1980

Contractor and Contract No.	Section and County	Acceptance Date
Douglas S. Coats Const. No. 9071	UPRR/Burnt River (Huntington) Br. Baker County	October 30, 1980
Baker Redi-Mix, Inc. No. 9171	Forest Boundary-North Powder River Baker County	October 30, 1980

November 10, 1980

C. T. Keasey
Asst. State Highway Engineer

#8959

November 3, 1980

The Aetna Casualty & Surety Co.
Bond Department
200 Market Building, Suite 1500
200 S.W. Market Street
Portland, OR 97201

CON 5
#8959

Gentlemen:

On October 22, 1980, we wrote to you concerning release of final payment on Contract No. 8959 awarded to Peter Kiewit Sons' Co., for work on the Lexington-Boardman Relief Road Section of the Lexington/Lake Fk.Hwy and the [illegible] Section of the Heppner Highway in Morrow County.

Final payment on this contract is $9,723.04 and the total contract amount is $2,431,955.85. No work was performed under Aetna account.

Sincerely,

Robert F. Overton
[illegible]

dmp

cc: Peter Kiewit Sons' Co.
[illegible]
Vancouver, WA 98663

bcc: C. T. Keesey
Walt Hart
W. E. Schwartz

#8759

INT 9

June 26, 1980

Pater Kiewit Sons' Company
P. O. Box 1777
Vancouver, WA 98663

Attention: Leonard Kearney

Gentlemen:

Claim Settlement
Lexington-Bombing Range Road &
Lexington-Pieper Canyon Road
Contract No. 8959

Your claim for additional compensation on the above contract has been carefully reviewed. In accord with Section 109.04 of the contract Standard Specifications, an additional payment of $13,065.00 has been determined to be a fair and equitable allowance for the Cement Treated Subgrade work performed.

Price Agreement No. 9 in the above amount is enclosed for your execution. Please return the price agreement to Resident Engineer, Bobby Johnson, for processing.

Sincerely,

H. S. Coulter
State Highway Engineer

Enclosure

OBJ:fr jh
bc: R. L. Schroeder
C. T. Keasey
W. E. Schwartz
Bobby Johnson

Form A-169 -5M

OREGON STATE HIGHWAY DEPARTMENT

Price Agreement

APPLYING TO EXTRA WORK AND EXTRA MATERIAL

Project Name Lexington-Bombing Range Rd. & Lexington-Pieper Canyon Rd. Date June 25, 1980

Highway Lexington/Echo & Heppner Contract No. 8959

County Morrow Prefix 125-1106

Contractor Peter Kiewit Sons' Company F. A. Project No. State

Address P.O. Box 1777, Vancouver, Washington 98663 Price Agreement No. 9

For the below described extra work or extra material to be performed or furnished under the contract above referred to, the contractor agrees to accept payment at the prices given herein, understanding that, except as herein otherwise provided, the work is to be performed and the material is to be furnished in accordance with the specifications which form a part of the contract and in accordance with the instructions of the engineer.

Work to be done:

Claim settlement.
To compensate the contractor for all additional cost involved in and resulting from the construction of Cement Treated Subgrade on this project.

Locations by station numbers:

Throughout the entire project.

Names of pay items, estimated quantities and agreed prices:

B.I. 14 Cement Treated Subgrade
B.I. 15 Cement For Treated Subgrade
B.I. 16 Aggregate For Treated Subgrade

CLAIM SETTLEMENT $13,065.00 Lump Sum

Specifications, basis of measurement and other provisions:

All contract documents and amendments remain in full force and effect. This agreement constitutes mutual accord and satisfaction to settle all claims for additional compensation for the construction of Cement Treated Subgrade on this project.

INSTRUCTIONS

After the signature of the contractor has been obtained, submit six copies (including original copy) to the Salem Office. After approval by the Assistant State Highway Engineer, approved copies will be sent to the Contractor, the Division Engineer, and the Resident Engineer.

This order does not constitute authority for expenditure until approved by the Assistant State Highway Engineer or State Highway Engineer.

Project authorization	2,404,657.13
Present estimate of project cost, including $13,065.00 for work under this order	2,510,728.00
Expected XXXXXXXX over-run (amount)	$ 106,071.00
Expected XXXXXXXX over-run (per cent)	4.4

Space to the right of this line for use of Salem Office.

Submitted by: ..... Resident Engineer

Signed ..... Contractor

Approval Recommended: ..... Division Engineer

Approval Recommended: ..... Construction Engineer or Bridge Engineer

Approved: ..... Assistant State Highway Engineer, Bridge Engineer or Office Engineer

State Printing

STATE OF OREGON

INTEROFFICE MEMO

FILE: INT 9

DEPT. TELEPHONE

TO: H. S. Coulter
State Highway Engineer

DATE: June 25, 1980

FROM: O. B. Jackmond, Secretary
Contract Claims Review Board

SUBJECT: Contract Claim
Lexington-Bombing Range Rd. &
Lexington-Pieper Canyon Rd.
Contract No. 8959

RECEIVED STATE HWY ENG'R JUN 26 '80 REFER TO FOR Info Inves R/D D/R Sign Act File

The Contract Claims Review Board convened on May 5 to review the claim of Peter Kiewit Sons' Company for additional compensation on the above project. Present at this meeting were:

Claim Board	Contractor Representatives	OSHD Rep.
Robert Schroeder, Chairman	Lee Kearney	W. E. Schwartz
Jack Sollis	Mike O'Leary	Robert Hector
Larry Rulien		Wm. Ferguson
Dave Moehring		Bobby Johnson
Vern Skoog		
(Bryant Jackmond, Sec.)		

This project, as awarded, included: The construction of 9.75 miles of cement treated subgrade surfaced with asphaltic concrete pavement; the construction of 1.49 miles of cement treated base surfaced with asphaltic concrete pavement; the construction of 1.04 miles of asphaltic concrete pavement overlay.

Subsequent to contract award, the State added the construction of cement treated subgrade to the 1.04 mile section of A.C. overlay. The contractor's claim is for additional costs incurred in the construction of the cement treated subgrade in this 1.04 mile section.

Contractor's Position

A "Bomag Pulverizer" was used to construct the cement treated subgrade. During construction of the cement treated subgrade in the area added to the project, large rock (8"-0"±) was encountered. These "rocks" caused excessive wear of the pulverizer teeth. Similar "rocks" were encountered in the original contract portion of the work, but not to the extent encountered in the added work area. Also, the added work area was the first subgrade treatment done on the project and "rock" encountered in the original contract area was, by State-contractor agreement, removed and replaced with base aggregate prior to pulverizing.

Neither the contractor nor the State was experienced in this type of construction. The project was not large enough to warrant a subsurface investigation by the contractor and the contractor assumed the required work was logically performable.

Although the contractor ultimately signed a price agreement for the added work at original contract unit prices, his claim for additional compensation was documented by letter both before and after the work was performed. The added work was started on about August 20, 1979 and the pulverizing work was completed on about August 28, 1979. Price Agreement No. 1, signed originally on about October 1 and revised version signed on about November 26, 1979 did not waive the contractor's right to claim additional costs.

The contractor claims that additional costs in the amount of $26,532.38 were incurred in performing this added work and requests additional compensation in that amount.

State's Position

The State first proposed to add cement treated subgrade in the shoulder areas only of the 1.04 mile section of A.C. overlay. This proposal called for cement treating a strip approximately 4½ feet in width on each side of the existing roadway. The contractor declined to do this added work at contract bid prices and requested a price adjustment to be determined after the added work was completed. The narrow treatment width was understood to be the reason for the contractor's refusal to agree to do the added work at contract bid prices. Subsequently, the State revised its proposal to provide for full width cement treated subgrade in the added work area. This revision was offered shortly prior to starting the subgrade treatment work and the contractor did not voice any objection to performing the revised added work at contract unit bid prices.

The material encountered in the subgrade treatment in the added work area was substantially the same as encountered in the original contract area. The cost to the contractor would have been the same no matter what part of the project he started first with the subgrade treatment. The contractor started work on the treated subgrade in the added work area first - hence this claim. A part of any added cost was due to the inexperience of the operator of the machine used to pulverize the subgrade. After a reasonable "learning experience" by the contractor and the State as to the capabilities of the equipment, a mutual agreement was reached whereby the contractor removed and sidecast the larger rocks encountered and the State paid for base aggregate to backfill these areas. This "learning experience" occurred during the subgrade pulverizing of the 1.04 mile added work area, but would have been of the same duration no matter where the contractor started this type of work. The State should not be responsible for contractor inexperience on bid item work.

The contractor did, upon completion of subgrade pulverizing in the added work area, advise the State that "rocks" were wearing out or damaging "teeth" at a rate higher than expected and that the State would be asked to pay these costs. This was by letter of August 28, 1979. The basis of this claim was disputed by the State's letter of September 11. Subsequently, on about October 1, 1979, the contractor signed Price Agreement No. 1 agreeing to do the added subgrade treatment at contract unit prices. This Price Agreement was revised to detail the individual bid items and contract unit prices and was again signed by the contractor on about November 26, 1979.

The State's position is that the contractor has been paid in accord with the contract provisions for the added work performed.

Board Findings and Recommendation:

1. The contract states that in preparation of the subgrade for cement treatment "The upper 6-inches of the existing surfacing and base material shall be broken up to a condition such that it will pass a 3-inch sieve."

2. Rock material in the existing "surfacing and base" of up to 8" is not consistent with specification requirements.

3. The State properly acknowledged this inconsistency and mitigated the contractor's cost after completion of subgrade treatment in the 1.04 mile added work area.

4. Price Agreement No. 1, while providing to do this work at bid prices, may have a technical flaw since the final version was not signed by an authorized agent of the contractor.

5. The State should reimburse the contractor for reasonable additional costs incurred due to the presence of large (up to 8") rock in the area treated prior to adopting mitigating measures.

6. The contractor's claimed additional cost of $26,532.38 is unsupportable. A delay time of 38.3 hours is claimed for all labor and equipment used in subgrade treatment at full Force Account rates. Time required tc pulverize the entire 1.04 mile added work area was 48 hours. The contractor's claim also includes a double markup for labor and equipment.

   Removing the obvious overlaps and excessive down time claimed, it appears that the contractor's most probable additional cost would be approximately $16,825.00.

7. The contractor started this project with equipment new to him and with an operator not experienced on this equipment. The above cost derivation is based on a comparison of the first 48 hours of subgrade treatment with the final 409 hours of this work. This does not properly account for the normal contractor's "learning experience".

8. The Board recommends that the contractor be reimbursed his invoice price for pulverizer teeth used on the 1.04 mile added work area to the extent that teeth used in this area exceed the average teeth used on the remaining work. This amounts to 300 teeth at $43.55 each, or $13,065.00.

A rough draft letter to the contractor is enclosed for your consideration. This is a State construction project.

OBJ:fr

Enc.

cc: Robert Schroeder
Jack Sollis
Larry Rulien
Dave Moehring
Vern Skoog
W. E. Schwartz
Bobby Johnson

T. 8959

Moore Co.

Duane O. Christensen
Jack Sullivan

June 25, 1980

J. H. Verstaag
Road Design Engineer

Cement Treated Base
Lexington-Bowling Range Road
Contract No. 8959

The attached Narrative Report prepared by Bobby Johnson, [illegible] on Contract 8959, covers the details of cement [illegible] base materials. The report covers the pulvertizing of [illegible] surfacing, the cement treating of the existing and added materials, and the problems withthe patholing of cement treated base under traffic.

Please make copies of the Narrative Report available to your [illegible] and specifications writers since the problems identified in the Narrative seem to be common to cement treated base projects.

[illegible]
Sullivan
Terpin
Trout
[illegible]

JUN 26 1980
ROAD DESIGN SECTION

Action

[illegible]
cc: C. T. Keaney
[illegible]

Lexington-Bombing Range R
Lexington-Pieper Canyon R
Contract No. 8959
Lexington-Echo & Heppner Hwys.

Pref. No. 125-1106
Morrow County
Bobby D. Johnson, Res. Eng.
State Project

NARRATIVE REPORT

This project starts at the junction of the Lexington-Echo Highway and the Heppner Highway in the City of Lexington. A section of this project runs Southeast 2.37 miles on the Heppner Highway. The major portion runs Northeast from Lexington 9.89 miles on Lexington-Echo Highway to the junction with Bombing Range Road.

This project consists of grading and paving a 1.33 mile section on the Heppner Highway and 0.15 mile section on the Lexington-Echo Highway. The major portion is cement treated subgrade and paving. A small amount of guard rail at bridge ends and delineators throughout the project.

The contract for this work was awarded to Peter Kiewit Sons' Co. on June 12, 1979. The contractor started work on this project August 13, 1979. Work was completed May 29, 1980. A total of 252 calendar work days were used.

Temporary Protection and Direction of Traffic, Flagmen and Pilot Car were performed in an orderly and professional manner.

Traffic was controlled by the use of signs, cones, flagmen and pilot car. Pilot car was to be used in paving operation only, but pulverizing and cement treatment work progressed in a manner that for safety the traffic was controlled by Pilot Car.

Grading work consisted of excavating cuts between M.P. 38.0 and 38.5. The bulk of material excavated was waste material and placed on County property Left of M.P. 38.0. A small amount went to fill area on Lexington-Echo Highway M.P. 0.66 to 0.81.

The prospective material source set up for this project was used by the contractor to produce all aggregates used on this project.

Cement treated subgrade work consisted of three separate work items: Pulverizing existing surfacing, adding four inches of imported materials (3"-0) and cement treating the existing and imported materials to form a cement treated subgrade.

The original area to receive treatment was on the Lexington-Echo Highway only. The first revision to this was to pulverize and treat four-foot shoulders on a section of the Heppner Highway from M.P. 36.6 to M.P. 37.48. After looking into all the problems, this revision was changed by price agreement to treat the full width, the same as on the Lexington-Echo Highway. This resulted in a price agreement for extension of quantities. The contractor elected to start pulverizing work on this added section first. The contractor did not have any experience in this type of work and ran into problems. The first problem came in learning how to operate the equipment for pulverizing, a great deal of teeth wear was experienced through this 4,750 foot area and production was slow. Much wear came about the first half day's work. The contractor tried to pulverize the pavement without getting below the pavement. It was learned that wear was reduced and production was faster when working below the existing pavement. The next problem with wear was due to trying to move too fast with the machine. Wear was reduced by slower operation. The next larger

1 Versteeg ✓
Anderson
X Christensen copy
Olson
AO Sullivan Copy
Terpin
Trout
Wakerlig

RECEIVED
JUN 24 1980
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring Up / /
Action

1

NARRATIVE REPORT
Contract No. 8959

factor to wear was in trying to pulverize through areas with large rocks. When all this experience was gained, the contractor skipped over areas with large rocks and work went well and teeth wear was reduced.

The contractor submitted a claim to regain claimed costs for excessive teeth wear and support equipment and labor down time. This would amount to a payment for experience gained. As of this writing, the Claims Review Board has recommended some payment.

In the course of construction one problem encountered was bad potholes in cement treated base due to the long period of time traffic used the treated base before paving.

I would like to note that the contractor experienced some delays and slow production of 3"-0 aggregates.(Imported materials)

We experienced a problem with the cement treated subgrade work. The problem was being unable to test the compaction by our standard methods. The gradation of the pulverized existing surface was not uniform due to the constant change of materials below the existing pavement. This made it impossible to test the density by normal means. Test results for compaction of the cement treated subgrade was determined visually for deflection while being compacted by rollers.

The contractor's aggregate production on this project started late in the season and production was slow. The result was not being able to finish paving the first season.

The contractor had problems producing 1/4"-0 paving aggregates to specifications. This resulted in non-specification aggregates. The Salem Lab was able to make a mix design with the aid of a blend sand additive.

The contractor used a drum dryer plant on this project. The A.C. mix was controlled by the cold feed sampling method for gradation and the asphalt content was checked by the metering system on the plant. Bituminous mix was also checked in the field and by Salem Lab. The result was a satisfactory A.C. mix.

The late start in paving the base course resulted in adverse weather conditions much of the time. The contractor was allowed to pave the base lift throughout the project before weather forced a shut down. A portion of mix had to be used to prelevel on the Lexington-Echo Highway to correct the crown and super in the cement treated subgrade. The top lift of paving was completed in good weather this Spring and resulted in a satisfactory paving job.

There was some extra work that came up after construction was under way. A small timber structure at M.P. 8.02 on the Lexington-Echo Highway was found to be too narrow and a check also found it to be structurally unsound. By an extra work order the structure was removed and replaced with a 12'8" x 8'1" multiplate arch pipe.

It was also found that throughout the project proper drainage was lacking. So cleaning ditches throughout the project and additional culvert pipes were added to the extra work order for replacing the timber structure.

Respectfully submitted,

Bobby D. Johnson

Bobby D. Johnson
Resident Engineer

SUMMARY
STATEMENT OF OVERRUNS AND UNDERRUNS

Lexington-Bombing Range Road
Lexington-Pieper Canyon Road
Contract No. 8959

Prefix No. 125-1106
Peter Kiewit Sons' Co.-Contractor
Bobby D. Johnson, Resident Engineer

	Original Amount	Semi-Final Amount	% + or -
Bid Items	$ 2,082,973.00	$ 2,121,101.74	+ 1.8%
Anticipated Items	54,500.00	142,724.25	+161.9%
Contingencies	96,186.29	170,294.18	+ 77.0%
Engineering	170,997.84	110,000.00	- 35.7%
TOTALS	$ 2,404,657.13	$ 2,544,120.17	+ 5.8%

Respectfully Submitted,

Bobby D. Johnson

Bobby D. Johnson
Resident Engineer

Lexington-Bombing Range Rd.
Lexington-Pieper Canyon Rd.

Contract No. [illegible]
Prefix No. 126-110

STATEMENT OF OVERRUNS AND UNDERRUNS

B.I. NO.	DESCRIPTION	UNIT	FINAL QUANTITY	CONTRACT AMOUNT	FINAL AMOUNT	% + or -
1	Mobilization	Lump Sum	All	$ 151,783.20	$ 151,783.20	0
2	Temporary Protection and Direction of Traffic	Lump Sum	All	38,905.00	38,905.00	0
3	Temporary Signs	SqFt	804	7,020.00	4,824.00	-31.3%
	Coordination of work made it unnecessary to have several work areas; therefore, signs were not used.					
4	Temporary Barricades	Each	8	500.00	400.00	-20.0%
	Contract quantity overestimated.					
5	Flagmen	Hour	3,038.5	10,800.00	6,077.00	-43.7%
	Coordination of work made it unnecessary to have several work areas; therefore, additional flagmen were not needed.					
6	Pilot Car	Hour	685	3,150.00	14,385.00	+356.7%
	Due to construction methods used in pulverizing and cement treatment, it was necessary to use pilot car for public safety.					
7	Clearing and Grubbing	Lump Sum	All	36,673.00	36,673.00	0
8	Removal of Structures And Obstructions	Lump Sum	All	10,500.00	10,500.00	0
9	General Excavation	CuYd	35,800	84,316.00	76,612.00	-9.1%
	Contract quantities overestimated.					
10.	Finishing Roadbeds and Slopes	Lump Sum	All	1,500.00	1,500.00	0
11	Aggregate Shoulders	Ton	8,376.79	63,564.80	63,998.68	+0.7%
12	Cement Treated Base	Ton	0	113,400.00	0	-100%
	Deleted in Price Agreement No. 7.					
13	Cement for Treated Base	Ton	0	55,200.00	0	-100%
	Deleted in Price Agreement No. 7.					
14	Cement Treated Subgrade	SqYd	183,575.47	239,751.00	280,870.47	+17.2%
	Original quantity underestimated plus addition of area between M.P. 35.60 to M.P. 37.48.					

STATEMENT OF OVERRUNS AND UNDERRUNS
Contract No. 8959

B.I. NO.	DESCRIPTION	UNIT	FINAL QUANTITY	CONTRACT AMOUNT	FINAL AMOUNT	% + Or -
15	Cement for Treated Subgrade	Ton	5,067.99	$ 248,000.00	$ 405,439.20	+63.5%
	Original quantity underestimated plus addition of area between M.P. 36.60 to M.P. 37.48.					
16	Aggregate for Treated Subgrade	Ton	3[illegible],161.21	130,200.00	152,644.84	+9.7%
	Original quantity underestimated plus addition of area between M.P. 36.60 to M.P. 37.48.					
17	1/4"-#10 Material in Chip Seal	CuYd	1,001	30,000.00	30,030.00	+0.1%
18	Emulsified Asphalt in Chip Seal	Ton	151.38	24,000.00	22,707.00	-5.4%
	Original quantity overestimated.					
19	Class "B" Asphalt Concrete Mixture	Ton	47,599.335	467,000.00	475,993.35	+1.9%
	Additional mix was used to build crown and super into original grade in some areas on Lexington-Echo Highway.					
20	Asphalt Cement in Mix	Ton	2,812.68	303,000.00	281,268.00	-7.2%
	Original quantity overestimated.					
21	Asphalt in Tack Coat	Ton	35.77	3,000.00	5,365.50	+78.9%
	Overrun became necessary because of the two season paving. Original quantities were for a one season paving operation.					
22	12-Inch Culvert	LinFt	66	520.00	1,320.00	+153.8%
	The plans called for 66 Lin. Ft. of 12-inch culvert and the bid quantity only called for 26 Lin. Ft.					
23	18-Inch Culvert	LinFt	90	1,000.00	2,250.00	+125.0%
	Added an additional 50 feet of 18-inch pipe in an approach which became necessary with new construction.					
24	24-inch Culvert	LinFt	236	1,740.00	7,080.00	+306.9%
	Added an additional 160 Lin. Ft. of pipe in areas lacking in drainage facilities.					
25	Guard Rail Type 2A	LinFt	1,200	18,000.00	18,000.00	0
26	Guard Rail Anchors Type 1	Each	22	6,000.00	5,500.00	-8.3%
	Deleted two anchors due to change of guard rail at removed bridge site.					
27	Rail End Pieces, Type C	Each	22	1,200.00	1,100.00	-8.3%
	Deleted two end pieces due to change of guard rail at removed bridge site.					

STATEMENT OF OVERRUNS AND UNDERRUNS
Contract no. 8959

B.I. NO.	DESCRIPTION	UNIT	FINAL QUANTITY	CONTRACT AMOUNT	FINAL AMOUNT	% + or -
28	Extra for Asphalt Approaches	Each	37	10,500.00	11,100.00	+5.7%
	Quantity underestimated in original contract.					
29	Loose Rip Rap, Class 100	Cu. Yd.	167.02	1,750.00	4,175.50	+138.6%
	Added an additional three areas to original plan quantities.					
30	Delineators	Each	530	11,000.00	10,600.00	-3.6%
	Contract quantity overestimated.					
	TOTAL BID ITEMS			$2,082,973.00	$2,121,101.74	+1.8%
PA1	Documentary					
PA2	Void					
PA3	Documentary					
PA4	Documentary					
PA5	Finishing Ditches	Mile	10	12,000.00	12,000.00	0
PA6	Documentary					
PA7	Delete CTB					
	Additional 3"-0 Material	Ton	19,062.88	69,512.00	76,251.52	+9.7%
	Additional 1"-0 Material	Ton	4,307.43	24,944.60	32,908.77	+31.9%
	More material than was estimated on price agreement was needed to complete grade to meet specifications.					
PA8	Remove bridge and replace with	Lump				
	Arch pipe	Sum	All	22,622.00	22,622.00	0
	Extra for Pipe Under Pavement	Lin. Ft.	68	560.00	544.00	-2.9%
	Ditch Excavation	CuYd	120.38	840.00	963.04	+14.6%
	More excavation was needed than originally estimated.					
	Remove and Reinstall Fence	Lump Sum	50%	300.00	150.00	-50%
	Contractor removed fence but did not reinstall fence at property owner's request.					

Page

STATEMENT OF OVERRUNS AND UNDERRUNS
Contract No. 8959

B.I. NO.	DESCRIPTION	UNIT	FINAL QUANTITY	CONTRACT AMOUNT	FINAL AMOUNT	% + or -
PA9	Pending in Salem					
PA10	Class "B" A.C. Recived by Maintenance Forces	Ton	1,776.915	35,538.30	35,538.30	0
	TOTAL PRICE AGREEMENTS			$ 166,316.90	$180,997.63	+8.8%
EW01	Adjust Mail Box Posts		0	$ 300.00	0	-100%
	No adjustment of mail box posts was necessary due to the fact that all posts were portable.					
EW02	Modify Approach Bridge			2,240.00	1,316.55	-41%
	Overestimated quantities for modification.					
	TOTAL EXTRA WORK ORDERS			$ 2,540.00	$ 1,316.55	-49.2%

709

June 5, 1980

Peter Kiewit Sons' Co.
P. O. Box 1777
Vancouver, WA 98663

COM 5
#8959

Attention: Harry Pahlgren

Gentlemen:

This will acknowledge your letter of June 2, 1980, stating that you have paid Pendleton-Heppner Freight Lines, Inc., for freight bills #1-837069, #1-942988 and #1-948286, in the total amount of $97.82 on May 22.

This appears to be in connection with our Contract No. 8959 for work on the Lexington-Bombing Range Road Section of the Lexington/Echo Highway and the Lexington-Pieper Canyon Road Section of the Heppner Highway in Morrow County.

In checking our records, we find that on May 14, 1980, a claim letter with bills from Pendleton-Heppner Freight Lines, Inc., was received on this contract against you and your subcontractor, Mid-Oregon Crushing, Inc., for freight bills totaling $139.41.

We are making a note in our records of your payment in the amount of $97.82.

Sincerely,

Robert W. Garman
Commission Secretary

gnk

cc: Pendleton-Heppner Freight Lines, Inc.
P. O. Box 3252
Portland, OR 97208
(with attachments)

PETER KIEWIT SONS' CO.
CONTRACTORS

ESTABLISHED 1884

HOME OFFICE - OMAHA, NEBRASKA

P. O. Box 1777

VANCOUVER, WASHINGTON 98663

Wn. Contr. Reg. #223-01-KI-EW-IP-S-375

June 2, 1980

Department of Transportation
Transportation Building
Salem, Oregon 97310

Attention: Robert W. Gormsen
Commission Services

Re: Lexington Job 6052

Gentlemen:

This is to advise you that we have paid Pendleton-Heppner Freight Lines, Inc. freight bills No. 1-857069, 1-942988 and 1-948886 in the total amount of $97.82 (check no. 190659) on May 22, 1980.

Sincerely,

PETER KIEWIT SONS' CO.

Harry Fahlgren

HF/sm

Enc.

cc: Pendleton-Heppner Freight Lines, Inc.
Job
File

RECEIVED
JUN 3 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue · Portland, Oregon 97214

SWEL

CONSIGNEE

PETER KIEWITT SO... HWY 74 LEXINGTON OR

SHIPPER ATTN STAN BARTA

FARWEST STEEL PTLD OR

PRO. NO. 1 857065

DATE 12 28 79 TD

ROUTING

SWEL-ARL-PKFL

DRIVER'S NO.

RX 3491DE

ADVANCE	S W REVENUE	BY/COD	TOTAL
	875		

WEIGHT	RATE	PREPAID	COLLECT
204 FS	M		1703 46 1749

2 PKG MDSE - FLAT BAR

RUSH RUSH

Ok

Please remit to
PENDLETON-HEPPNER FREIGHT LINES, INC.
Box 393 Ph. 963-8586

THIS BILL ASSIGNED AND PAYABLE TO:
PLEASE REMIT DIRECTLY TO:

TRANSPORT CLEARING, INC. Northwest
P.O. BOX 3263 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue - Portland, Oregon 97214

SWEL — FREIGHT BILL

CONSIGNEE / DESTINATION
PETER KIEWIT SONS CONSTR CO LEXINGTON ORE
ONE MILE NSO OF LEXINGTON HWY 74

PRO NO
1 942988

SHIPPER / POINT OF ORIGIN
GUTHRIE MACHYCO — PTLD ORE

DATE
4 22 80 JD

ROUTING (Waybill Numbers, Dates and Points of Transfer of All Previous Carriers)	ADVANCE	S.W. REVENUE	BEYOND	TOTAL
SWEL ARL PHFL		1003	820	
SHIPPER'S NO: NS	WEIGHT	RATE	PREPAID	COLLECT
1 BX ASPHALT RAKE HANDLES	18 FSC	M		1775 48 1823

Con. H. Fox

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO
PLEASE REMIT DIRECTLY TO:

TRADEX
P.O. BOX 3362 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue Portland, Oregon 97214

SWEL — FREIGHT BILL

CONSIGNEE
PETER KIEWIT STAN BORTA HWY 74 POB 6052 LEXINGTON OR

PRO NO
1 948886

SHIPPER
MACK TRK — PTLD OR

DATE
4 30 80 TL

ROUTING (Waybill Numbers, Dates and Points of Transfer of All Previous Carriers)	ADVANCE	S.W. REVENUE	BEYOND	TOTAL
SWEL ARL PHFL		3416		
SHIPPER'S NO: 80899 TN 2477	WEIGHT	RATE	PREPAID	COLLECT
1 TRK 5TH WHL	EXR 680 FSC	889		6046 164 6210

W. Bennett

THIS BILL ASSIGNED AND PAYABLE TO:
PLEASE REMIT DIRECTLY TO:

TRADEX
P.O. BOX 3362 • PORTLAND, OREGON 97208

8959

Final Report

FORM 734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Lexington-Bombing Range Rd Lexington-Pieper Canyon Rd	WEEK ENDING: May 31, 1980 SECTION PREFIX: 125-1106	
HIGHWAY: Lexington-Echo & Heppner	COUNTY: Morrow	
NAME OF JOB: Lexington-Bombing Range Rd Lexington-Pieper Canyon Rd	KIND OF WORK: Grading & Paving	
CONTRACTOR: Peter Kiewit Sons' Co.	CONTRACT NUMBER: 8959	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: June 12, 1979	DATE WORK STARTED: August 13, 1979	ESTIMATED COMPLETION DATE: May 30, 1980
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 2 SUPERVISION: 1	SPECIFIED WORK DAYS: 270 CWD	WORK DAYS USED: 252 CWD
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $2,404,657.13	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 93%
EXCLUSIVE OF ENGINEERING: $2,233,659.29	ENGINEERING AUTHORIZATION: $170,997.84	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $2,233,659.29	ENGINEERING COST TO DATE: $98,636.54	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100%
ESTIMATED PERCENT: OVERRUN / UNDERRUN ____%	PERCENT OF AUTHORIZATION: 58 %	DATE PROJECT WAS COMPLETED: May 30, 1980

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
100%	100%	100%	100%	100%	100%		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	12.26	12.26			12.26
MILES PARTIALLY COMPLETED	12.26	12.26			12.26
MILES COMPLETED	12.26	12.26			12.26
TOTAL ESTIMATED QUANTITIES (CONTRACT)	39,400 CY	43,120 Ton			46,700 Ton
TOTAL QUANTITIES CORRECTED TO DATE	35,800 CY	61,000 Ton			47,500 Ton
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	35,800 CY	61,000 Ton			47,500 Ton
AVERAGE DAILY QUANTITIES	0	0			0
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME	0	0			0
NUMBER OF SHIFTS PER DAY	0	0			0
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

D-8

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 25		1		
MONDAY 26		1		
TUESDAY 27	Cldy w/showers	1		
WEDNESDAY 28	Overcast cool	1		
THURSDAY 29	Overcast mild	1		
FRIDAY 30	Ptly cldy mild	1		
SATURDAY 31		0		Project completed May 30, 1980

Kaesey Richards
Jackmond Berg
Hopkins Inlows
Williams Widmer
Johnsen Gebauer
Stein Church

RECEIVED
JUN 2 1980
CONSTRUCTION BRANCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY 25	No Activity
MONDAY 26	No Activity
TUESDAY 27	No Activity
WEDNESDAY 28	No Activity
THURSDAY 29	Contractor cleaning up pit area.
FRIDAY 30	Contractor completed clean up of pit area.
SATURDAY 31	No Activity

REMARKS

Contractor cleaned up pit area completing project. Second notification sent in for May 30, 1980.

SIGNED Bobby D. Johnson LOCATION Pendleton

Bobby D. Johnson, Res. Eng.

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

6P-F216

8959 5430

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

FILED
MAY 28 1980
NORMA PAULUS
SECRETARY OF STATE

May 27, 1980

IN REPLY REFER TO
FILE NO.:
COM 5
#8959

Pendleton-Heppner Freight Lines, Inc.
P. O. Box 397
Lexington, OR 97839

Attention: Dona Orvick
Secretary-Treasurer

Gentlemen:

This will acknowledge your letter dated May 14, 1980, concerning freight bills to Peter Kiewit and Sons and their subcontractor, Mid-Oregon Crushing, totaling $229.41. The detail is outlined in the bills dated October 1979 through April 1980 attached to your letter.

The claim appears to be in reference to the Peter Kiewit Sons' Company Contract No. 8959 for work on the Lexington-Boardman Range Road Section of the Lexington-Echo Highway and Lexington-Pieper Canyon Road Section of the Heppner Highway in Morrow County.

We are forwarding copies of this letter and the bills to the Secretary of State for filing, to the prime contractor and to the surety.

Please advise this office when the claim has been paid.

Sincerely,

Robert W. Gorman
COMMISSION SERVICES

RECEIVED
MAY 30 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

cc: Peter Kiewit Sons' Co.
215 South "V" Street
Vancouver, WA 98663

The Aetna Casualty & Surety Company
200 S. W. Market Street
Portland, OR 97201

NORMA PAULUS
SECRETARY OF STATE
MAY 28 4 12 PM '80

bc: Hon. Norma Paulus - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

RECEIVED

6-6-80
noted on card.

May 14, 1980

State Transportation Bldg.
R. W. Gormsen Mgr.
Commission Service
Room 121
Salem, Oregon 97310

Dear Mr. Gormsen,

Pendleton-Heppner Freight Lines Inc. has been delivering to Peter Kiewitt & Sons, and their subcontractor, Mid-Oregon Crushing, on Job No. 6052, Highway 74, Lexington, Oregon 97839.

Three freight bills dated October thru November of 1979 have not been paid. These bills are addressed to Peter Kiewitt & Mid-Oregon Crushing, and amout to $131.59 with interest. I also have three other bills, addressed to Peter Kiewitt amounting to $97.82, making a total of $229.41 owed to Pendleton-Heppner Freight Lines. Peter Kiewitt has left, and I would appreciate any help you could give me in collecting these bills. Copys enclosed.

Sincerely,

Dona Orwick

Dona Orwick
Secty-Treas.
Pendleton-Heppner Freight Lines, Inc.
P O Box 397
Lexington, Oregon 97839
Phone 989-8586

RECEIVED
MAY 16
COMMISSION
DEPARTMENT OF TRANSPORTATION

8959 5424

files

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

FILED
MAY 7 1980
NORMA PAULUS
SECRETARY OF STATE

May 6, 1980

IN REPLY REFER TO
FILE NO.: CON 5
#8959

Mr. Ronald M. Somers
Attorney at Law
106 East 4th Street
The Dalles, OR 97058

RECEIVED
MAY 7 1980
NORMA PAULUS
SECRETARY OF STATE

Dear Mr. Somers:

This will acknowledge receipt of your Notice of Claim on behalf of Albert E. DeAtley and Brian Sims indicating that Mid-Oregon Crushing, Inc., and Philip Dahl owes them for equipment rental in the amount of $118,201.98, plus interest.

The claim states this is in reference to Contract No. 8959 for work on the Lexington-Bombing Range Road Section of the Lexington-Echo Highway and Lexington-Pieper Canyon Road Section of the Heppner Highway.

The principal contractor is Peter Kiewit Sons' Company and their surety is The Aetna Casualty and Surety Company. We will advise them of the receipt of this claim and we will forward it to the Secretary of State for filing.

Please advise this office when your client's claim has been paid.

Sincerely,

Robert W. Gormsen
COMMISSION SERVICES

RECEIVED
MAY 9 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

NOTED ON CARD
for Item by grbe 5-9-80

cc: Peter Kiewit Sons' Co.
215 South "V" Street
Vancouver, WA 98663

The Aetna Casualty & Surety Company
200 Market Building, Suite 1500
Portland, OR 97201

bc: Hon. Norma Paulus,
Secretary of State- Please acknowledge receipt of this attached claim on the enclosed copy of this letter.

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

May 6, 1980

MAY 7 1980

IN REPLY REFER TO
FILE NO.: CON 5
#8959

Mr. Ronald M. Somers
Attorney at Law
106 East 4th Street
The Dalles, OR 97058

Dear Mr. Somers:

This will acknowledge receipt of your Notice of Claim on behalf of Albert E. DeAtley and Brian Sims indicating that Mid-Oregon Crushing, Inc., and Philip Dahl owes them for equipment rental in the amount of $118,201.98, plus interest.

The claim states this is in reference to Contract No. 8959 for work on the Lexington-Bombing Range Road Section of the Lexington-Echo Highway and Lexington-Pieper Canyon Road Section of the Heppner Highway.

The principal contractor is Peter Kiewit Sons' Company and their surety is The Aetna Casualty and Surety Company. We will advise them of the receipt of this claim and we will forward it to the Secretary of State for filing.

Please advise this office when your client's claim has been paid.

Sincerely,

ROBERT W. GORMSEN

Robert W. Gormsen
COMMISSION SERVICES

cc: Peter Kiewit Sons' Co.
215 South "V" Street
Vancouver, WA 98663

The Aetna Casualty & Surety Company
200 Market Building, Suite 1500
Portland, OR 97201

RECEIVED
NOV 17 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

RECEIVED
MAY 1 1980
LEGAL

RECEIVED
DEPT DIRECTOR
MAY 1 '80
REFER TO
Sallis
FOR

NOTICE OF CLAIM ON PAYMENT BOND

Oregon State Highway Division Contract No. 8959

TO: Norma Paulus
Secretary of State
State Capitol
Salem, Oregon 97310

Department of Transportation
c/o Fred B. Klaben, Director
135 Transportation Building
Salem, Oregon 97310

Peter Kiewit Sons' Co.
P. O. Box 1777
Vancouver, Washington 98663

Employers Mutual Liability
Insurance Company of Wisconsin
Suite 350, Market Building
200 Market Street
Portland, Oregon 97201

Mid-Oregon Crushing Co.
P. O. Box 519
Redmond, Oregon 97756

NOTICE IS HEREBY GIVEN That the undersigned ALBERT E. DeATLEY and BRIAN SIBB, P. O. Box 10268, Yakima, Washington 98909, has a claim for equipment rental of a Barrett-Robins Apache Twin Portable Crusher Plant, Serial No. 19-7111, w/Cat D-333, 135 HP Diesel, Electric, Serial No. 62353-71-919031, and Holman Stacking Conveyor 30"x105', pursuant to a rental agreement, furnished to Mid-Oregon Crushing and Philip Tahl, a Joint Venture.

The claim is for $118,201.98, broken down as follows:

Equipment rental	$166,280.40
Interest to 2/8/80	5,529.58
Repair of jaw and rolls	8,600.00
Dismantle and freight back to yard	7,792.00
Total Due	$188,201.98
Payments received	70,000.00
Net Due	$118,201.98

Together with interest at 1½% per month from 4/28/80.

Page 1.

Principal on bond, Mid-Oregon Crushing, Inc., an Oregon corporation, and Phillip Dahl, a Joint Venture, P. O. Box 519, Redmond, Oregon 97756.

Surety, Employers Mutual Liability Insurance Company of Wisconsin, Suite 350, Market Building, 200 S. W. Market Street, Portland, Oregon 97201.

Work governed by this claim is Oregon State Highway Division Contract No. 8959, Lexington-Piper Canyon Road and Lexington Bombing Range Road, Morrow County, Oregon.

That Mid-Oregon Crushing was still working on the above project on March 14, 1980.

YOU ARE NOTIFIED and notice is sent pursuant to and in compliance with the laws of the State of Oregon as set forth in ORS 279.526, and the amount of the above claim as due and owing is that sum herein due after all allowances for just debts and offsets.

DATED this 28th day of April, 1980.

ALBERT E. DeATLEY and BRIAN SIMS
P. O. Box 10268
Yakima, Washington 98909

By _____
Ronald M. Somers
Attorney for Claimant
106 East 4th Street
The Dalles, Oregon 97058
Telephone (503) 296-2181

Return Receipt No. 573338

RECEIVED
MAY 1 1980
LEGAL

RECEIVED
HWY DIRECTOR
MAY 1 '80
REFER TO
FOR

NOTICE OF CLAIM ON PAYMENT BOND

Oregon State Highway Division Contract No. 8959

TO: Norma Paulus
Secretary of State
State Capitol
Salem, Oregon 97310

Department of Transportation
c/o Fred B. Klaboe, Director
135 Transportation Building
Salem, Oregon 97310

Peter Kiewit Sons' Co.
P. O. Box 1777
Vancouver, Washington 98663

Employers Mutual Liability
Insurance Company of Wisconsin
Suite 350, Market Building
200 Market Street
Portland, Oregon 97201

Mid-Oregon Crushing Co.
P. O. Box 519
Redmond, Oregon 97756

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Interest to 2/8/80	5,529.58
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Together with interest at 1½% per month from 4/28/80.

Principal on bond, Mid-Oregon Crushing, Inc., an Oregon corporation, and Philip Dahl, a Joint Venture, P. O. Box 519, Redmond, Oregon 97756.

Surety, Employers Mutual Liability Insurance Company of Wisconsin, Suite 350, Market Building, 200 S. W. Market Street, Portland, Oregon 97201.

Work governed by this claim is Oregon State Highway Division Contract No. 8959, Lexington-Piper Canyon Road and Lexington Bombing Range Road, Morrow County, Oregon.

That Mid-Oregon Crushing was still working on the above project on March 14, 1980.

YOU ARE NOTIFIED and notice is sent pursuant to and in compliace with the laws of the State of Oregon as set forth in ORS 279.526, and the amount of the above claim as due and owing is that sum herein due after all allowances for just debts and offsets.

DATED this 28th day of April, 1980.

ALBERT E. DeATLEY and BRIAN SIMS
P. O. Box 10268
Yakima, Washington 98909

By _____
Ronald M. Somers
Attorney for Claimant
106 East 4th Street
The Dalles, Oregon 97058
Telephone (503) 296-2181

Return Receipt No. 573338

RECEIVED
NOV 17 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

8959

PETER KIEWIT SONS' CO.

CONTRACTORS

ESTABLISHED 1884

Telephone
(402) 342-2052

One Thousand Kiewit Plaza
Omaha, Nebraska 68131

TWX
9106220292

May 2, 1980

Mid-Oregon Crushing Co. and
Philip Dahl, a Joint Venture
PO Box 519
Redmond, OR 97556

Re: Albert E. DeAtley and Brian Sims
Notice of Claim on Payment Bond
Lexington Job, Oregon State Highway
Division Contract No. 8959

Gentlemen:

Enclosed is a copy of a notice of claim against your company in the amount of $118,201.98 for equipment and rental alleged to be furnished to you for the referenced project. Pursuant to the terms of our subcontract, we request that you immediately settle this matter and have the claimant notify us to that effect in writing.

Your attention is called to Section 3 of the subcontract. Under such section, in the event of a claim, we have the right to withhold from your payments an amount sufficient to completely protect us from this claim until the matter has been settled. Accordingly, we must withhold payments until this matter is satisfactorily settled.

Very truly yours,

PETER KIEWIT SONS' CO.

Bruce Clawson
Counsel

BC/cnm

Enclosure

cc: Employers Mutual Liability Ins. Co. of Wisconsin
(Re: Bond No. 2350 07 034063C)
Department of Transportation (c/o Fred B. Klaboe, Director)
Joseph A. Yazbeck, Jr. (Re: Mid-Oregon Crushing Co.)

RECEIVED
STATE HWY ENGR
MAY 6 - '80
REFER TO
Dornsen
FOR
Info | Approp | R/D | D/R | Sign | Act | File

NOTED
FRAN NEAVOLL
Claim already filed with Lic. & Title
no action necessary
TAB

RECEIVED
DOT DIRECTOR
MAY 6 '80
REFER TO
Coulter
FOR
Info | Approp | R/D | D/R | Sign | Act | File

RECEIVED
MAY 7 - 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

NOTICE OF CLAIM ON PAYMENT BOND

Oregon State Highway Division Contract No. 8959

TO: Norma Paulus
Secretary of State
State Capitol
Salem, Oregon 97310

Department of Transportation
c/o Fred B. Klaboe, Director
135 Transportation Building
Salem, Oregon 97310

Peter Kiewit Sons' Co.
P. O. Box 1777
Vancouver, Washington 98663

Employers Mutual Liability
Insurance Company of Wisconsin
Suite 350, Market Building
200 Market Street
Portland, Oregon 97201

Mid-Oregon Crushing Co.
P. O. Box 519
Redmond, Oregon 97756

NOTICE IS HEREBY GIVEN That the undersigned ALBERT E. DeATLEY and BRIAN SIMS, P. O. Box 10268, Yakima, Washington 98909, has a claim for equipment rental of a Hewett-Robins Apache Twin Portable Crusher Plant, Serial No. 19-7111, w/Cat D-333, 135 KW Diesel, Electric, Serial No. 62353-71-919031, and Kolman Stacking Conveyor 30"x105', pursuant to a rental agreement, furnished to Mid-Oregon Crushing and Philip Dahl, a Joint Venture.

The claim is for $118,201.98, broken down as follows:

Equipment rental	$166,280.40
Interest to 2/8/80	5,529.58
Repair of jaw and rolls	8,600.00
Dismantle and freight back to yard	7,792.00
Total Due	$188,201.98
Payments received	70,000.00
Net Due	$118,201.98

Together with interest at 1½% per month from 4/28/80.

Principal on bond, Mid-Oregon Crushing, Inc., an Oregon corporation, and Philip Dahl, a Joint Venture, P. O. Box 519, Redmond, Oregon 97756.

Surety, Employers Mutual Liability Insurance Company of Wisconsin, Suite 350, Market Building, 200 S. W. Market Street, Portland, Oregon 97201.

Work governed by this claim is Oregon State Highway Division Contract No. 8959, Lexington-Piper Canyon Road and Lexington Bombing Range Road, Morrow County, Oregon.

That Mid-Oregon Crushing was still working on the above project on March 14, 1980.

YOU ARE NOTIFIED and notice is sent pursuant to and in compliance with the laws of the State of Oregon as set forth in ORS 279.526, and the amount of the above claim as due and owing is that sum herein due after all allowances for just debts and offsets.

DATED this 28th day of April, 1980.

ALBERT H. DeATLEY and BRIAN SIMS
P. O. Box 10268
[redacted]

By _____
Ronald M. Somers
Attorney for Claimant
106 East 4th Street
The Dalles, Oregon 97058
Telephone (503) 296-2181

Return Receipt No. 573302

RECEIVED
MAY 7 - 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

8959

RECEIVED
DOT DIRECTOR
MAY 1 '80
REFER TO
FOR

NOTICE OF CLAIM ON PAYMENT BOND

Oregon State Highway Division Contract No. 8959

TO: Norma Paulus
Secretary of State
State Capitol
Salem, Oregon 97310

Department of Transportation
c/o Fred B. Klaboe, Director
135 Transportation Building
Salem, Oregon 97310

Peter Kiewit Sons' Co.
P. O. Box 1777
Vancouver, Washington 98663

Employers Mutual Liability
Insurance Company of Wisconsin
Suite 350, Market Building
200 Market Street
Portland, Oregon 97201

Mid-Oregon Crushing Co.
P. O. Box 519
Redmond, Oregon 97756

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Together with interest at 1½% per month from 4/28/80.

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DATED this 28th day of April, 1980.

ALBERT E. DeATLEY and BRIAN SIMS
P. O. Box 10268
Yakima, Washington 98909

By _____
Ronald M. Somers
Attorney for Claimant
106 East 4th Street
The Dalles, Oregon 97058
Telephone (503) 296-2181

Return Receipt No. 573338

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue · Portland, Oregon 97214

SWEL

ORIGINAL FREIGHT BILL

CONSIGNEE / DESTINATION	PRO NO
PETER KIEWIT SONS CONSTR CO LEXINGTON ORE ONE MILE NSO OF LEXINGTON HWY 74	1 942988
SHIPPER / POINT OF ORIGIN	**DATE**
GUTHRIE MACHYCO — PTLD ORE	4 22 80 JD

ROUTING (Waybill Numbers, Dates and Points of Transfer of All Previous Carriers)	ADVANCE	S.W. REVENUE	BEYOND	TOTAL
SWEL ARL PHFL		1003	820	
SHIPPER'S NO: NS				

	WEIGHT	RATE	PREPAID	COLLECT
1 BX ASPHALT RAKE HANDLES	18 FSC	M		1775 48 1823

Don H. Fox

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO:
PLEASE REMIT DIRECTLY TO: TRADEX
P.O. BOX 3262 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue · Portland, Oregon 97214

SWEL

ORIGINAL FREIGHT BILL

CONSIGNEE	PRO NO
PETER KIEWIT STAN BORTA HWY 74 POB 6052 LEXINGTON OR	1 948886
SHIPPER	**DATE**
MACK TRK — PTLD OR	4 30 80 TL

ROUTING (Waybill Numbers, Dates and Points of Transfer of All Previous Carriers)	ADVANCE	S.W. REVENUE	BEYOND	TOTAL
SWEL ARL PHFL		3416		
SHIPPER'S NO: MO899 TN 2477				

	WEIGHT	RATE	PREPAID	COLLECT
1 TRK 5TH WHL	680 FSC	889		6046 164 6210

W. Bennett

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO:
PLEASE REMIT DIRECTLY TO: TRADEX
P.O. BOX 3262 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue - Portland, Oregon 97214

SWEL

CONSIGNEE: MID OR CRUSHING PETER KIEWITT & SONS NS — DESTINATION: HEPPNER OR 97836 — PRO NO. 1 822118

SHIPPER: ORE BELT & TRANS — POINT OF ORIGIN: PTLD OR — DATE: 11 13 79 TP

ROUTING (Waybill Numbers, Dates, and Points of Transfer of All Previous Carriers): SWEL-ARL-PHFL

SHIPPER'S NO: NS

	ADVANCE	S.W. REVENUE	BEYOND	TOTAL
		1051	878	

	WEIGHT	RATE	PREPAID	COLLECT
1 PLT W/SKIRTBRD RBR & V BELTS	150 FS	M		1878 51 XXXX 1929

Please remit to PENDLETON HEPPNER FREIGHT LINES, INC. Box 3303

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO: TRADEX
PLEASE REMIT DIRECTLY TO: P.O. BOX 3262 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue - Portland, Oregon 97214

SWEL

CONSIGNEE: MID-OREGON CRUSHING C/ PETER KIEWIT & SONS HEPPNER OR

SHIPPER: EAGLE FOUNDRY CO EA PTLD OR

DATE: 11 23 79 NL

ROUTING (Waybill Numbers, Dates, and Points of Transfer of All Previous Carriers): SWEL ARL PHFL

SHIPPER'S NO: 1147

	ADVANCE	S.W. REVENUE	BEYOND	TOTAL

	WEIGHT	RATE	PREPAID	COLLECT
2 BARRLES 24 ROUGH STL CAST AS	1904 2000 FSC	414		3280 284 8504

Please remit to PENDLETON HEPPNER FREIGHT LINES, INC. Box 3303

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO: TRADEX
PLEASE REMIT DIRECTLY TO: P.O. BOX 3262 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue - Portland, Oregon 97214

SWEL ORIGINAL FREIGHT BILL

CONSIGNEE	DESTINATION		PRO NO.
MID OREGON CRUSHING % PETER KIEWITT	HEPPNER OR 97		1 798711
SHIPPER	POINT OF ORIGIN		DATE
ORE BELT & TRANS	PTLD OR		10 17 79 TP
ROUTING (Waybill Numbers, Dates and Points of Transfer of All Previous Carriers)	ADVANCE	S.W. REVENUE	BEYOND / TOTAL
SWEL-ARL-1HFL		965	
SHIPPER'S NO	WEIGHT	RATE	COLLECT
NS			
1 PLT RBR BEARINGS	250 FS	M	1878 51 1929

PEN... Box 393 ... Lexington, Oregon ...

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO
PLEASE REMIT DIRECTLY TO:

TRADEX
P O. BOX 3262 • PORTLAND, OREGON 97208

Silver Wheel Freightlines, Inc.

1321 S.E. Water Avenue - Portland, Oregon 97214

SWEL ORIGINAL FREIGHT BILL

CONSIGNEE			PRO NO.
PETER KIEWITT JOB ... HWY 74		LEXINGTON OR	1 857065
SHIPPER ATTN STAN BARTA			DATE
FARWEST STEEL		PTLD OR	12 28 79 TD
ROUTING (Waybill Numbers, Dates and Points of Transfer of All Previous Carriers)	ADVANCE	S.W. REVENUE	BEYOND / TOTAL
SWEL-ABL-P1HFL		875	
SHIPPER'S NO	WEIGHT	RATE	COLLECT
X 3491DE			
2 PKG MDSE - FLAT BAR	204 FS	M	1703 46 1749
RUSH RUSH			

OK

Stu Barta

Please remit to
PENDLETON-HEPPNER FREIGHT LINES, INC.
Box 393 Ph. 989-8586

TRAILER NUMBER

THIS BILL ASSIGNED AND PAYABLE TO:
PLEASE REMIT DIRECTLY TO:

TRANSPORT CUSTOMERS NORTHWEST
Lexington, Oregon 97839
P.O. BOX 3262 • PORTLAND, OREGON 97208

8757

VICTOR ATIYEH
GOVERNOR

Department of Transportation
STATE HIGHWAY DIVISION

IN REPLY REFER TO
FILE NO

REGION 5 OFFICE

P. O. Box 850 La Grande, Oregon 97850 Telephone 963-3177

March 19, 1980

Kuasey
Jackmond
Hopkins
Williams
Johnsen
Glen

RECEIVED
MAR 20 1980
CONSTRUCTION
BRANCH

Richards
Berg
Inloes
Widmer
Gebauer
Church

Peter Kiewit Sons' Co.
P. O. Box 1777
Vancouver, Washington 98668

ATTN: Mike O'Leary

Dear Sir:

Re: Lexington-Bombing Range Road, Lexington-Pieper Canyon Road, Morrow County, Contract #8959

I have thoroughly reviewed your claim for additional compensation due to excessive wear and maintenance to your Bomag Pulverizers. The basis for your claim, as I understand it, is that the State changed the typical section of a one mile section of the highway. In order to construct the changed typical section, you claim that your pulverizers experienced excessive tooth wear due to the rocky condition of the base and subgrade.

It is true that the typical section of the one mile section of highway was changed from the typical section that your original bid was based on. The change made the typical section for this mile the same as the typical section for the vast majority of the work of the project.

By price agreement #1 you agreed to build the typical section for this one mile at the same unit prices as the rest of the project which had the same typical section. While the typical section was changed, it was changed with your approval and agreement as to compensation. Therefore, it appears that there is no basis for a claim as far as a change in plans.

I am advised that the conditions encountered in this one mile section were not significantly different from conditions encountered in the rest of the project where the subgrade was cement-treated. Areas of extensive pit-run base material were encountered throughout the project.

There appears to be no doubt that you did incur excessive wear to your equipment in the one mile section. I am advised that the reason for this was not due to a changed condition from what you agreed to, but rather the inexperience of your personnel in doing this type of work. It was in this one mile section where you did your first cement treatment. From the experience gained here, you were able to finish the rest of the project with much less wear and maintenance to your equipment.

From my review it appears that there was no change in plans or quantities, scope of work, or character of work which has to be the basis for a claim for additional compensation. Your claim is denied.

Sincerely,

W. E. Schwartz
Region Engineer

WES/vt
cc: Construction
Bobby Johnson

PETER KIEWIT SONS' CO.

CONTRACTORS

ESTABLISHED 1884

HOME OFFICE - OMAHA, NEBRASKA

P. O. Box 1777

VANCOUVER, WASHINGTON 98663

December 31, 1979

Oregon State Highway Department
P. O. Box 459
Pendleton, Oregon 97801

Attention: Mr. W. C. Ferguson
Resident Engineer

Re: Lexington-Bombing Range Road
Lexington-Pieper Canyon Road
OSHD Contract No. 8959
Subject: Bomag Pulverizer Wear
Lexington Job No. 6052
Serial Letter V-15

Gentlemen:

Pursuant to our Serial Letter V-10, dated August 28, 1979, we are asking you to pay for 300.48 Bomag teeth.

We used an average of 1.57 teeth per hour on the Lexington-Bombing Range Road section, or 630 teeth. We averaged 7.83 teeth per hour on the Lexington-Pieper Canyon Road section or 376 teeth. The Pieper Canyon section, approximately 1 mile long, required 376 teeth and took 48 hours to pulverize. The remaining 9+ miles of road required 630 teeth and 409 hours to pulverize. In other words, 11% of the project required 59% of the teeth.

This section of road had been constructed by laying A/C directly on either sub-grade or shot rock and we could not have foreseen this condition prior to construction. There were a few, small, similar areas in the Bombing Range Road section, but our collective experience gained in Pieper Canyon enabled us to handle these areas with minimal wear.

We have attached a copy of an invoice to substantiate the cost of Bomag teeth, $43.55, the installation averaged six minutes per tooth at a cost per minute of $5.00 or a cost per tooth of $35.29. The breakdown for installation/down-time, using Oregon Rental Rates (October 1979), is as follows:

EQUIPMENT	EQUIPMENT COST	LABOR COST	TOTAL
Cat. #14 Blade	$67.70	$23.00	$90.70
Rayco 600 Roller	51.20	22.00	73.20
Bomag MPH 100	64.60	24.00	88.60
2 Flagmen	--	38.00	38.00

Rec. 1-3-80
B.J.

PETER KIEWIT SONS' CO.

EQUIPMENT	EQUIPMENT COST	LABOR COST	TOTAL	
Sign Man/Truck	$9.90	$20.00	$29.90	
Supt./Pickup	7.50	25.00	32.50	
Total Cost per Hour			$352.90	
Cost per Tooth ($\frac{352.90}{60}$ X 6)			35.29	Installation/ Downtime
Cost per Tooth			43.55	Invoice
Overhead Costs			9.46	12%
Total Cost per Tooth			$88.30	

Total cost per job is $88.30 X 300.48 teeth or $26532.38, the amount due Peter Kiewit Sons' Co.

Yours very truly,

PETER KIEWIT SONS' CO.

Mike O'Leary

Mike O'Leary

MO/elc
Encls.

cc: Res. Eng. (3)
Bobby D. Johnson
Job
File

.1979 Castle Rock-Cedar 8960
.Cr. Three Rivers Hwy.
.(Paving)

#8960

December 5, 1980

Seaboard Surety Company
Seattle First National Bank Building
1001 4th Avenue
Seattle, WA 98154

OSH 5
#8960

Gentlemen:

A post-final payment for $1,200.00 will be made to J. C. Cameron Company on Contract No. [illegible] for paving on the Castle Rock-Cedar Creek Section of the Three Rivers Highway in Tillamook and Yamhill Counties as soon as the warrant is prepared.

The total amount paid on this contract will be $[illegible] including this post-final payment. Of the total, $3,[illegible].37 is now being withheld.

Sincerely,

[illegible] V. Cameron
[illegible]

[illegible]

cc: J. C. Cameron Company
[illegible]
[illegible], OR 97128

cc: C. T. Mooney
[illegible]
C. O. Fredrickson

VICTOR ATIYEH
GOVERNOR

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

November 21, 1980

In Reply Refer to
File No.: CON 5 #8960

J. C. Compton Company
Post Office Box 86
McMinnville, OR 97128

H. S. Coulter

Attention: Alan Hay

Re: Time Extension Request
Castle Rock-Cedar Creek Section
Contract No. 8960

Dear Mr. Hay:

In our meeting with you on November 21, you requested a reconsideration of your previous request for additional contract time on the above project. We discussed possible delays due to the late Price Agreement for guard rail, extra work, and wide area paving. A review indicates that the project may have been delayed up to eight calendar days due to the guard rail price agreement and a contract time extension of eight calendar days is granted for that reason. It does not appear that the items of extra work or the wide area paving delayed the completion of the project and additional time is not granted for these items.

There remains two days of liquidated damages assessed under this contract.

Sincerely,

C. T. Keasey
Assistant State Highway Engineer

cc: H. S. Coulter
C. O. Fredrickson
Cliff Lehman
Robert Church

RECEIVED
STATE HWY ENGR
NOV 24 '80
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

Form 734-3122

8.9.60

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

8-6-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
R. A. Hatch Co. No. 8971	Columbia River (Interstate) Bridge Multnomah Co., Oregon Clark Co., Washington	July 14, 1980
Jarl Construction, Inc. No. 8782	North Unit, Condon-Thirtymile Creek Gilliam Co.	July 15, 1980
R. L. Coats No. 8753	Baldock Slough-S. Baker Intchge. Baker Co.	July 18, 1980
Cascade Constr. Co., Inc. No. 8957	Lawnfield Rd.-Clackamas Hwy. Clackamas Co.	July 18, 1980
J. C. Compton Co. No. 8985	Carus Jct.-Woodburn-Estacada Hwy. Clackamas Co.	July 18, 1980
Cushing Bros., Inc. No. 9099	Dundee (S.W. 5th St.) Yamhill Co.	July 21, 1980
J. C. Compton Co. No. 8960	Castle Rock-Cedar Creek (M.P. 4.8-M.P. 16.5) Tillamook & Yamhill Counties	July 22, 1980
Holst Construction Co. No. 8842	Neal Creek Bridge Hood River Co.	July 24, 1980
A-1 Sandblasting & Steam-cleaning Co. No. 8714	Coos Bay (McCullough) Bridge Coos Co.	July 24, 1980
Hertz Electric, Inc. No. 9038	S. Ore. Ave. @ High School Entrance and Monroe St. @ Broadway Ave. (Burns) Harney Co.	July 24, 1980
Morse Bros. Inc. No. 8982	Corvallis/Newport Hwy. @ 19th St. (Philomath) Benton Co.	July 25, 1980
Cascade Constr. Co., Inc. No. 8923	Wilson River Hwy. Jct.-Vista Ridge Tunnel Washington and Multnomah Counties	July 29, 1980
Tawn Mar Constr. Co. No. 9065	Parsnip Creek Rock Production Lake Co.	July 29, 1980
L. W. Hembree Co. No. 8981	SW Capitol Hwy. @ SW Huber St. (Portland) Multnomah Co.	July 30, 1980

Contractor and Contract No.	Section and County	Acceptance Date
S. D. Spencer & Son No. 8003	Garden Valley Rd.-Fairgrounds Intchge. Douglas Co.	July 30, 1980
Hamilton Electric, Inc. No. 8966	Columbia River Hwy. @ Umatilla Br. Spur (Umatilla) Umatilla Co.	August 4, 1980
S. D. Spencer & Son No. 8501	Cottage Grove-Martin Creek Lane Co.	August 6, 1980
Tawn Mar Constr. Co. No. 9064	Drews Reservoir Lake Co.	August 6, 1980
W. R. Grasle Co. No. 9069	Scholls Hwy. @ SW 121st Ave. (Tigard) Washington Co.	August 6, 1980

August 6, 1980

C. T. Keasey
Asst. State Highway Engineer

August 4, 1960

Seaboard Surety Company
Seattle-First National Bank Bldg.
1001 - 4th Avenue
Seattle, WA 98154

CON 3
#2960

Gentlemen:

On July 25, 1960, we wrote to you concerning release of final payment on Contract No. [redacted] awarded to J. C. Compton Contractor for paving on SR-8 Cosmopolis-Indian Creek Section of the Olympic Highway in Pacific and Wahkiakum Counties.

The total contract amount is $894,448.02 including $5,044.57 for work performed under force account.

Sincerely,

[redacted]

[redacted]

[redacted]

cc: C. T. [redacted]
[redacted]
C. C. Fairchild

8960

STATE OF OREGON

INTEROFFICE MEMO

RECEIVED
STATE HWY ENGR
MAY 9 - '80
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

NOTED
H. S. COULTER

TO: C. O. Fredrickson
Region Engineer

DATE: May 1, 1980

FROM: John C. Jenkins
Engineer of Materials
by
James E. Wilson, Jr.
Asst. Engineer of Materials

Subject: Testing of Asphalt Concrete Cores, Castle Rock-Cedar Cr. Section, Cont. #8960

Testing of asphalt concrete cores sampled from five locations at 2 foot intervals across each panel on the Castle Rock-Cedar Creek project has been completed. Test results and observations indicate that the pavement raveling and potholing are the result of inadequate asphalt coating of aggregate, excess variation in mix gradation and asphalt content and excess soft material contained in the aggregate. Enclosed are laboratory reports #80-3663-7, #80-3763-5, #80-3805-9, #80-3845-9 and #80-3927-31 along with five graphs showing mix variation.

Inspection of the mix shows that the coarse aggregate is 40 to 95 percent coated. Aggregates are dirty, containing soft materials, and asphalt is not uniformly mixed with the aggregates. It is our opinion that on future projects we should limit the amount of soft materials contained in paving aggregates by specifying an AASHTO T112-78 Friable Particle requirement of 2.0 percent maximum for coarse aggregate and 3.0 percent maximum for fine aggregate. In addition, we feel that the uniformity of mixing by the drum mix process, particularly at high production rates, should be checked into on each project.

The gradation and asphalt content test results show considerable variation across the panel at test locations one, two and three. In these locations the pavement has considerable raveling and potholing in the outside wheel track, which is the area of severe mix variation. It appears that the areas of coarse gradation, low asphalt content and void content in excess of 15 percent are the result of segregated mix in the windrow not being picked up and run through the paving machine.

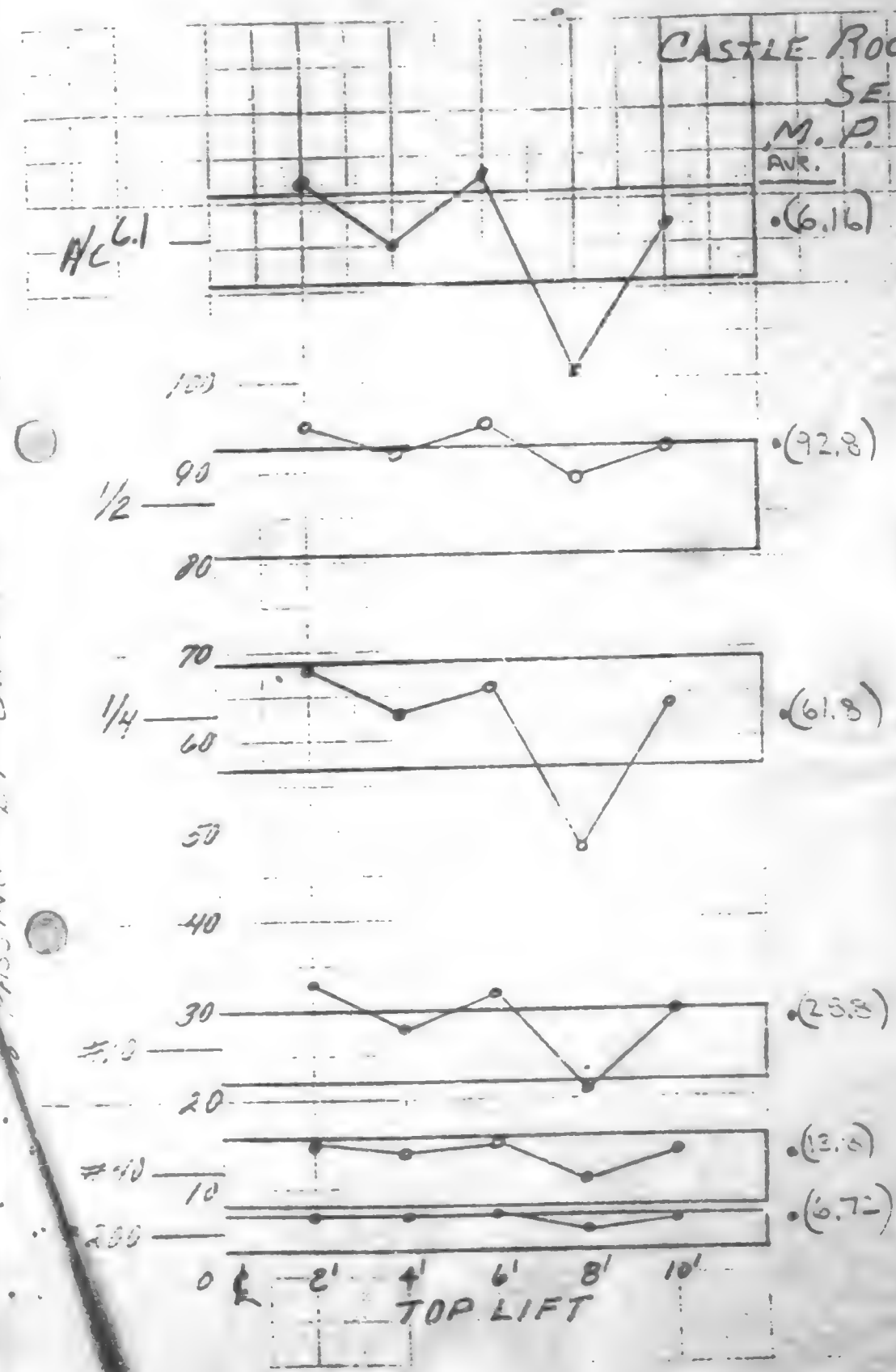
Asphalt recovered from the mix is of a softer consistency than expected for an AR4000 grade. This asphalt condition is likely the result of plant mixing at temperatures of less than 300° to 325° F, which is that expected for the asphalt residue (AR) grading system.

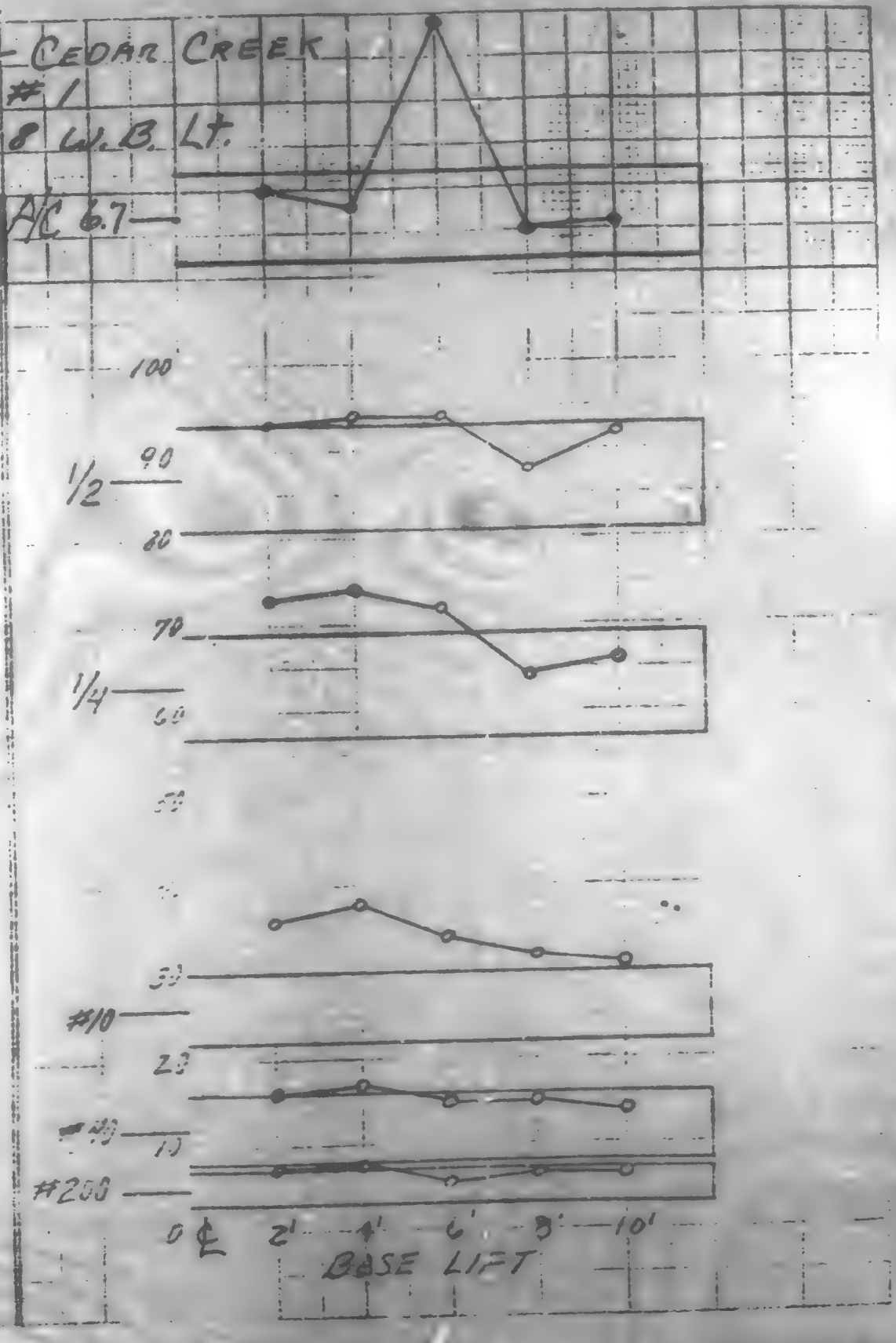
With the indicated and observed problems in the paving on the project, it is our opinion that the surfacing should be sealed in the near future. This will reduce the amount of aggregate breakdown in the mix and protect the pavement from the effect of high void content in localized areas.

cc: C. T. Keasey
J. H. Versteeg
G. Wimer
W. Fretwell
Dr. R. G. Hicks
C. Lehman

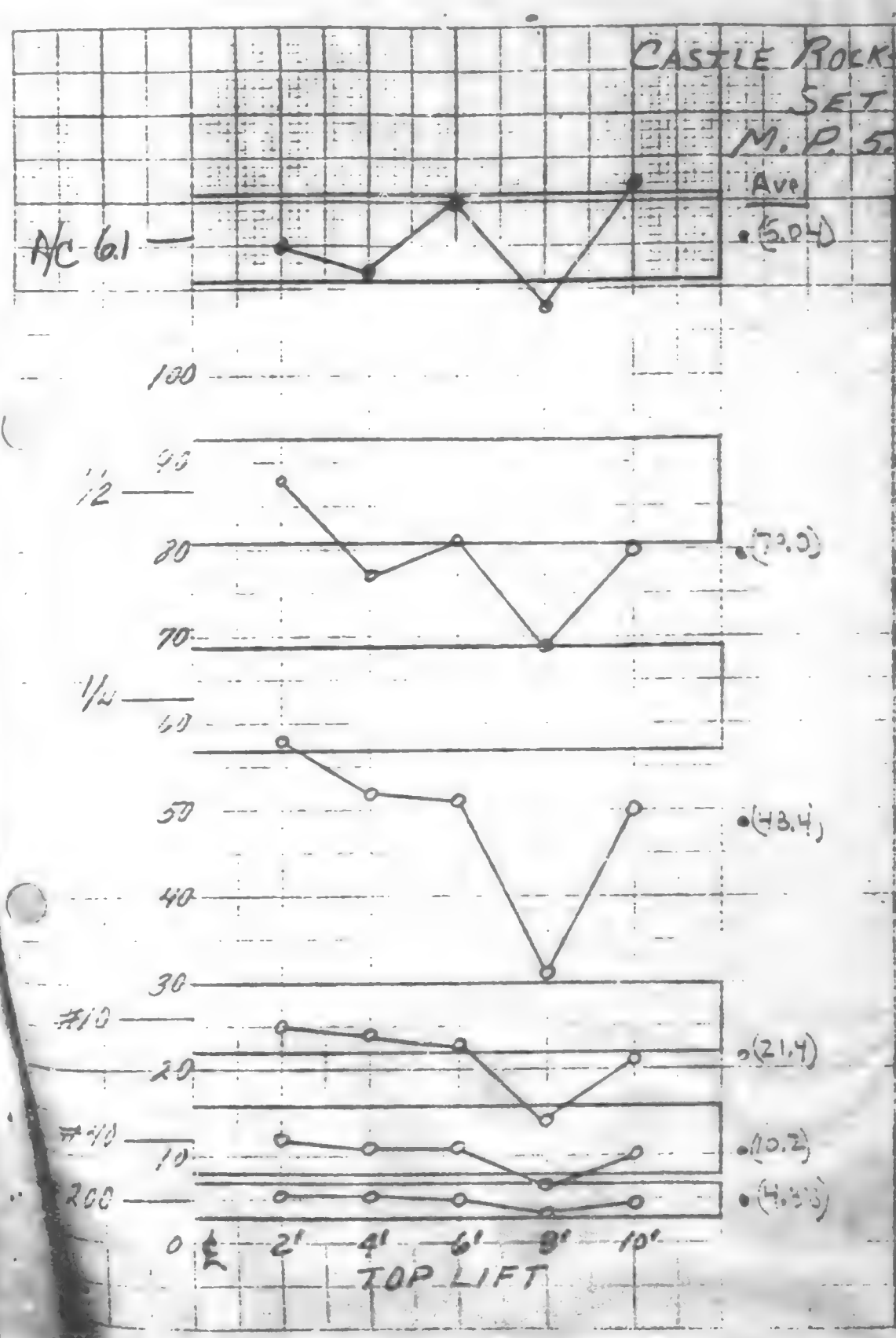
Contains Recycled Materials
81-188-1387

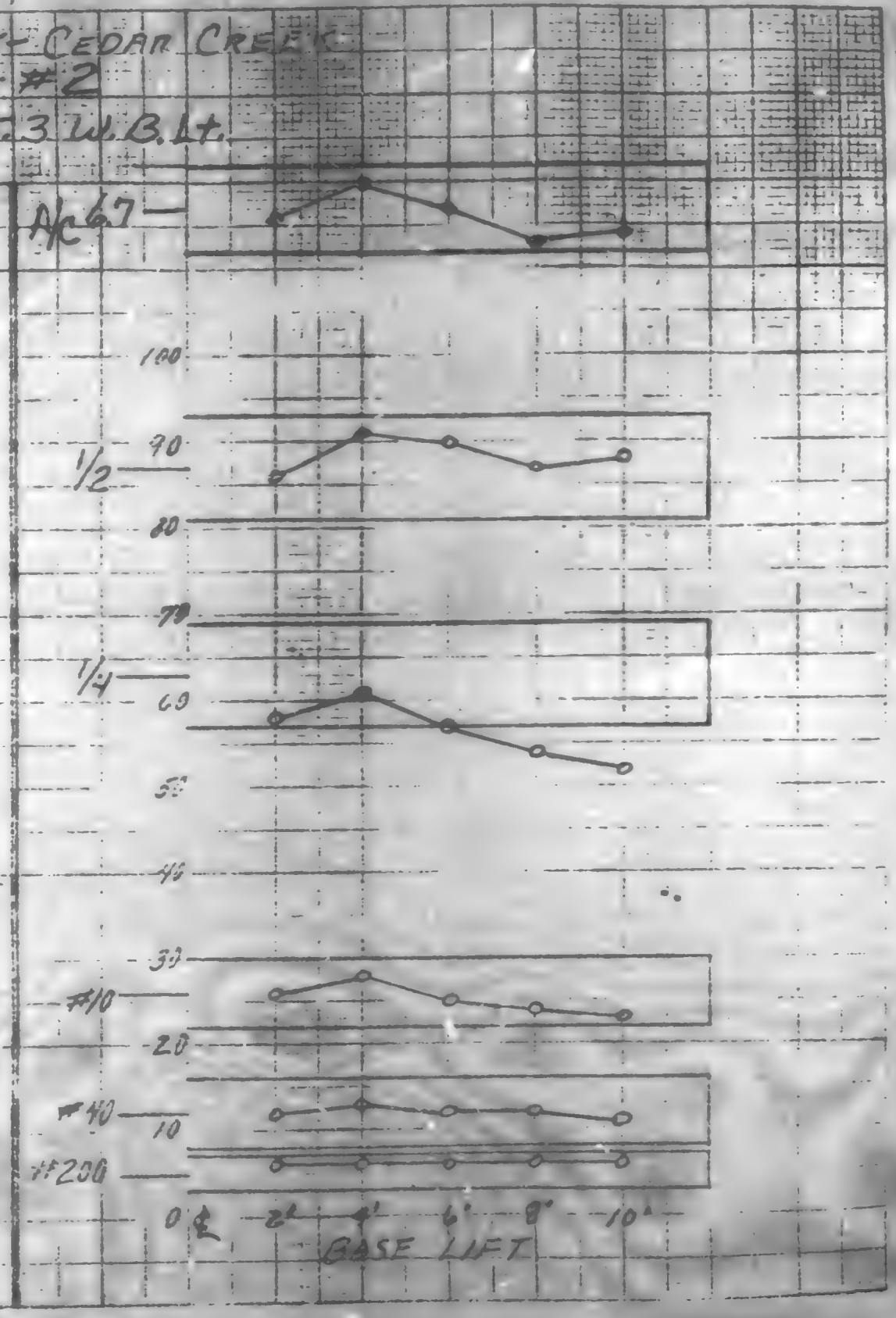
CASTLE ROCK – CEDAR CREEK
SET #1
M.P. 7.8 W.B. Lt.





CASTLE ROCK - CEDAR CREEK
SET #2
M.P. 5.3 W.B. Lt.





CASTLE ROCK - CEDAR CREEK

SET #3

M.P. 6.3 E.B. LT.

Ave.

A/C 6.1 — (5.06)

100

1/2 — 90 — (9-.5)

80

70

1/4 — 60 — (59.6)

50

40

30

#10 — 20 — (22.4)

#40 — 10 — (1.2)

#200 — 0 — (.55)

0 2' 4' 6' 8' 10'

A/C 6.7

100

1/2 — 90

80

70

1/4 — 60

50

40

30

#10 — 20

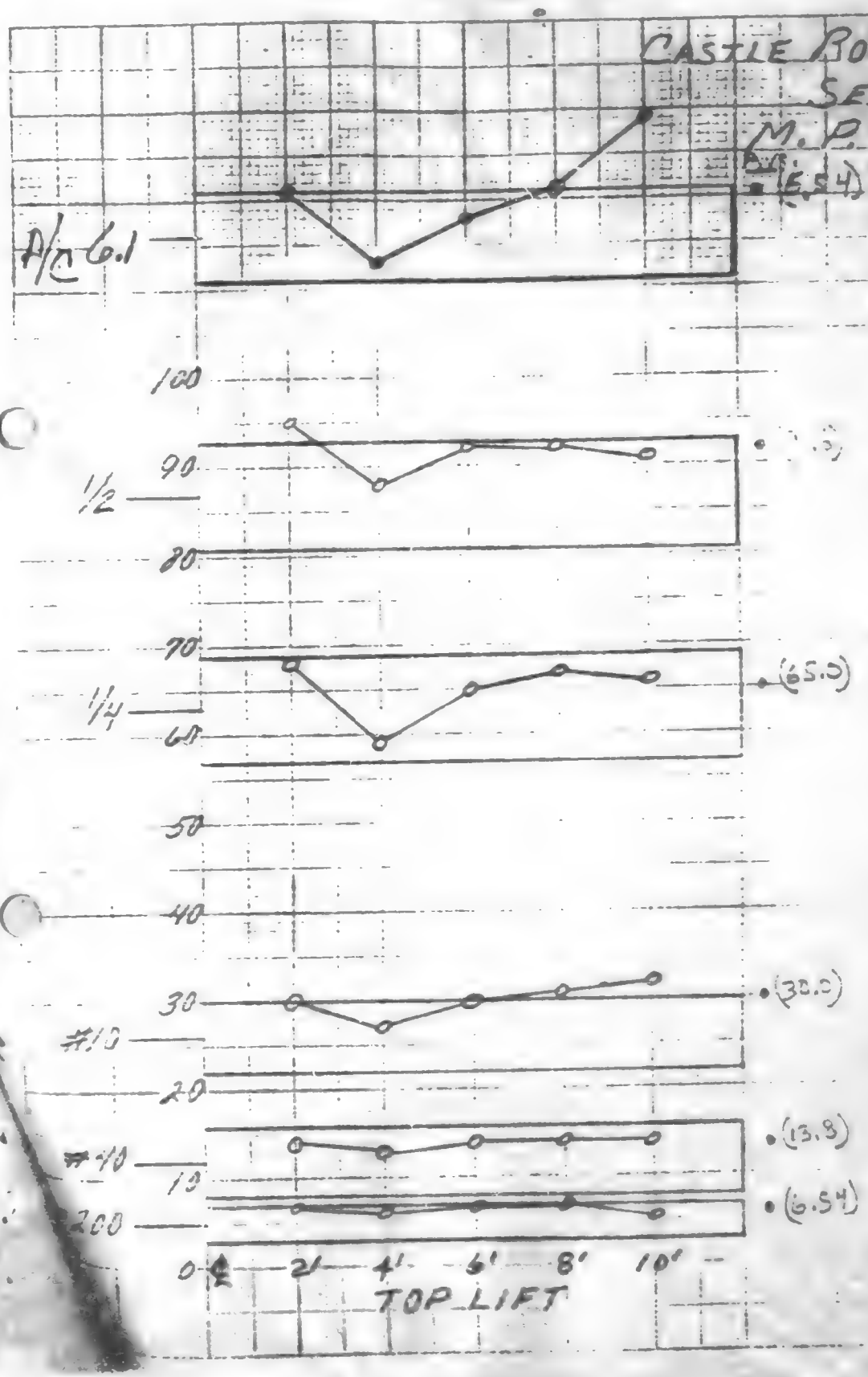
#40 — 10

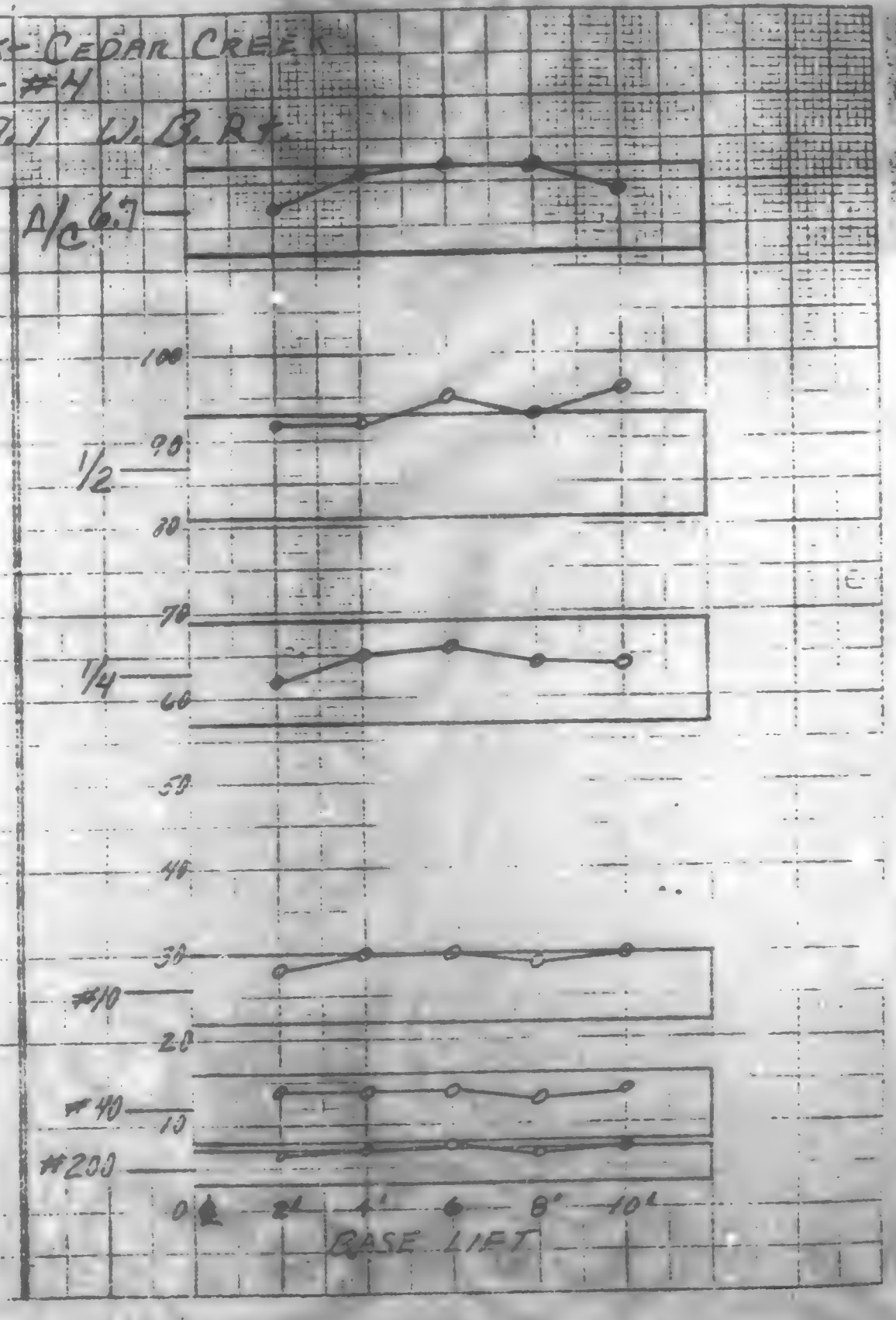
#200 — 0

0 2' 4' 6' 8' 10'

ORIGINAL PAGE IS OF POOR QUALITY

CASTLE ROCK - CEDAR CREEK
SET #4
M.P. 91 W.B. Rt.





CASTLE ROCK - CEDAR CREEK
SET #5
M.D. 11.7 E.B. Rt.

TOP LIFT

	A/C 6.1	
	AVG	(6.36)
100		
90		(93.2)
80		
70		(65.6)
60		
50		
40		
30		(31.2)
20		(15.2)
10		(7.2)
0		
	1/2	
	1/4	
	#10	
	#40	
	#200	

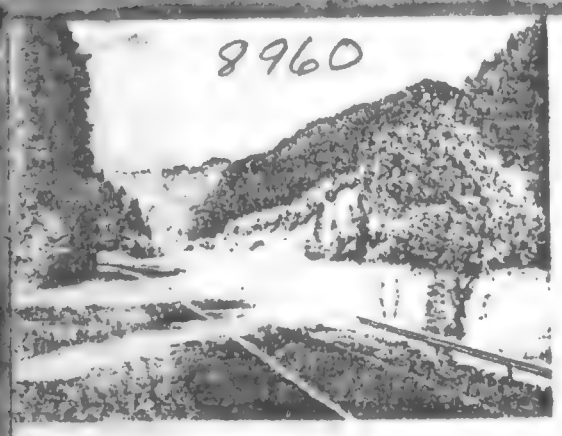
BASE LIFT

	A/C 6.7	
100		
90		
80		
70		
60		
50		
40		
30		
20		
10		
0		
	1/2	
	1/4	
	#10	
	#40	
	#200	

0 2' 4' 6' 8' 10'

Missing Info

8960



PHONE: 472-4155
AREA CODE 503

J. C. COMPTON COMPANY

Highway Construction *General Contractors*

P. O. BOX 86

McMINNVILLE, OREGON 97128

32

April 25, 1980

REGION 2 ENGINEER
RECEIVED
APR 28 1980
RDE RE RCE RME RTE ROE ULE GEO RSO ENV RFE

Mr. Gerald Wimer
Region Engineer
PO Box 14030
Salem, OR 97310

Re: Extension of Time & Extra Width Paving Claim
Castle Rock-Cedar Creek Section
OSHD Contract #8960
Compton Job #726

You may want to attend as Compton seem unwilling to accept State analysis

Dear Gerald:

This will confirm our telephone conversation of today, April 25, 1980, regarding our request for time extension and claim on extra width paving on the subject project.

As agreed, J. C. Compton will be at the meeting on May 12, 1980 at 1:15 p.m. in the OSHD Region Office in Salem, Oregon to discuss both of these matters.

The time extension granted by the OSHD for the subject project in the letter signed by C. T. Keasey dated April 18, 1980 is not realistic.

REFERRED TO
Beard Boudenmeyer
Cole Haag
Erikson Watson
Hager Dorn Lau
Return Discuss Do File Copy Dup
BY FINAL DESIGN ENGINEER

cc. Cliff Lakman } Appreciate both of you attending to defend State position.
cc. Ken Wolfe }
A Kimes

Sincerely,

J. C. COMPTON COMPANY

By Terry Guisinger
Terry Guisinger

TG:lm

cc: Alan Hay
cc Hal Gard Jr.
Bryant Lackmond
A Kimes

1 Versteeg
2 Anderson Doc
Christensen
Olson
Sullivan
Terpin
RECEIVED
APR 29 1980
ROAD DESIGN SECTION

Do Not File
Return To
Bring Up
Action

8960

VICTOR ATIYEH
GOVERNOR

Department of Transportation
STATE HIGHWAY DIVISION

IN REPLY REFER TO
FILE NO.:

April 18, 1980

CON 5

J. C. Compton Company
P. O. Box 86
McMinnville, OR 97128

Gentlemen:

Re: Time Extension Request
Castle Rock-Cedar Creek Sect.
Contract No. 8960

Your request for additional contract time on the above project has been thoroughly reviewed. A time extension of one calendar day is granted due to extra work performed. The remaining delays claimed were considered but no additional time is granted since they did not delay the completion of the project.

If you wish to present additional data or review this matter further, please contact the Region or Resident Engineer.

Very truly yours,

C. T. Keasey
Ass't. State Highway
Engineer

H. S. Coulter

CTK:mk

cc: H. S. Coulter
C. O. Fredrickson
Ken Wolfe
Bob Church

RECEIVED
STATE HWY ENGR
APR 21 '80
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

Form 734-9123

8960

FORM 81-735-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Castle Rock-Cedar Creek		WEEK ENDING: November 3, 1979
		SECTION PREFIX: 29-1125
HIGHWAY: Three Rivers		COUNTY: Tillamook & Yamhill
NAME OF JOB: Castle Rock - Cedar Creek	KIND OF WORK: Paving	
CONTRACTOR: J. C. Compton Company	CONTRACT NUMBER: 8960	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: June 12, 1979	DATE WORK STARTED: September 21, 1979	ESTIMATED COMPLETION DATE: October 20, 1979
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 5 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 120	CALENDAR DAYS USED 131
PROJECT AUTHORIZATION: $988,696.80	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 109%
EXCLUSIVE OF ENGINEERING: $910,297.93	ENGINEERING AUTHORIZATION $78,398.87	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $925,853.53	ENGINEERING COST TO DATE $33,657.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 97%
ESTIMATED PERCENT: OVERRUN 1.7 %	PERCENT OF AUTHORIZATION 43 %	DATE PROJECT WAS COMPLETED: October 31, 1979

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.	Guard Rail 100%	
———	———	———	———	100%	100%		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	-0-	-0-			11.7
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)	-0-	-0-			34,300 Ton
TOTAL QUANTITIES CORRECTED TO DATE					35,468.25 Ton
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					35,468.25 Ton
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

1-Compressor, 1-Drill, and 2-Trucks.

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELA.	CAUSE OF DELAY
Oct SUNDAY 28	Cloudy, Cool	128		
MONDAY 29	" "	129		
TUESDAY 30	Cloudy, Rain	130		
WEDNESDAY 31	Clear, Cool	131		Project Completed, Day count Stopped.
NOV. THURSDAY 1	" "	———		
FRIDAY	Ptly Cldy, Shwrs			
SATURDAY	Shwrs.			

RECEIVED
NOV 6 1979
CONSTRUCTION BRANCH

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY	No activity.
MONDAY	Contractor pouring type "1" anchors (Guard Rail).
TUESDAY	Contractor (sub) continued as yesterday.
WEDNESDAY	Contractor finished all guardrail installations and project clean-up. Contract work completed.
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

Final inspection held on November 1st (Thursday). The inspection was made by C. Wimer accompanied by T. Litchfield, Carl Williams, E. Everton and Fred Lucht. An SFC to provide for paving all approaches not paved under the contract is anticipated.

SIGNED K. D. Wolfe LOCATION Salem

DISTRIBUTION: Construction (2), Region, file.

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

SP-F216

8960

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE:

Salem, Oregon

May 14, 1979

Lyle K Watson

FROM: Lyle K. Watson
Design Engineer Supervisor

TO: The Files

SUBJECT: Castle Rock-Cedar Cr. (M.P. 4.8-M.P. 16.5)
Three Rivers Highway
Tillamook and Yamhill Counties

NOTED
E. S. HUNTER

Refer to the memo dated May 7, 1979, on the subject section. In Item 5(a), "Type 1A" should read "Type 2A" on leading and trailing ends flared.

LKW:mw
cc: E. S. Hunter
W. Hart
C. D. Fredrickson
F. E. Terpin
L. K. Watson

RECEIVED
TECHNICAL SERVICES
MAY 10 '79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Ltr | File

8960

37

STATE OF OREGON

INTEROFFICE MEMO

TO: Mr. D. O. Christensen
Final Design Engineer

DATE: May 9, 1979

FROM: T. G. Thompson
Supervising Structural
Design Engineer

SUBJECT:
MP 4.8-MP 16.5 Section
Three River Highway
Tillamook County
Bridges 4677, 4805, 4678, 4680 and 4681

It is recommended that no overlay be placed on the Alder Creek and Buck Creek Bridges, and that no additional overlay be placed on the Louie Creek Bridges. No membrane or other work on the structures is anticipated at this time.

GDA:dh

cc C. O. Fredrickson
George Hopkins
Jack Sullivan

REFERRED TO

Board Staudenmayer
Cole Kimple
Erikson Watson
Hager Dorn Lou
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

Versteeg
Anderson
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MAY 09 1979
ROAD DESIGN SECTION

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Action

81-158-1207

8960

File 32

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

May 7, 1979

FILE:

FROM: Lyle K. Watson
Design Engineer Supervisor

TO: The Files

SUBJECT: Castle Rock-Cedar Cr. (M.P. 4.8-M.P. 16.5)
~~Three Rivers Highway~~
Tillamook and Yamhill Counties

Plans have been prepared for an overlay and safety project on this section. A review of the safety features were made and the following items are included in the plans.

1. Pave all mail box turnouts.

2. Pave major road connections and commercial approaches.

3. Gravel surface road approaches, by State forces.

4. Feather pavement overlays to match at existing structures.

5. Guardrail

   (a) Replace existing guardrail with Type 1; 25 feet of Type 1A on leading and trailing ends flared. Terminal treatment is Type 1 anchors, "C" end pieces, or bury the end.

   (b) Bridge ends will be protected with 25' of Type 3, bridge connections, 50' of Type 2A on leading end and 25' on trailing ends flared. Terminal treatment is Type 1 anchors, "C" end pieces or bury the end.

   (c) Guardrail will be extended across structures with timber handrails. Guardrail members are fastened to the timber handrail.

The above safety work has been identified as priority work that should be done with the overlay. Due to the shortage of highway funds and the need to repair and preserve the roadway structure on as many miles as possible, other less essential work has been deferred to a later date.

LKW:mw
cc: E. S. Hunter
W. Hart
C. O. Fredrickson
F. E. Terpin
L. K. Watson

1 Versteeg ✓
Anderson
2 Christensen
Olson
3 Sullivan
Terpin
Trout
Wakerlig

RECEIVED
MAY 09 1979
ROAD DESIGN SECTION

Do Not File
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Bring Up
Action

.1979 Wades Point - 8961
.Joseph Wallowa Lake Hwy.
.(Grading & paving)

8961 D C File L

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

STATE HIGHWAY ENGINEER

1-2-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Hap Taylor, Inc., No. 8927	Odell Lake Rock Production Klamath County	December 11, 1979
W. R. Grasle Co., No. 8746	SW Barbur Blvd. @ SW Miles; W. Burnside St. @ NW 23rd; SW 1st Ave. @ SW Arthur Multnomah County	December 11, 1979
Mocon Corp., No. 8620	NE Sandy Blvd. U'xing, Multnomah County	December 11, 1979
Hamilton Electric, No. 8680	Elm Ave.-E. Highland Ave. (Hermiston), Umatilla Co.	December 13, 1979
Hertz Electric, Inc. No. 8825	Martinazzi Ave. & Boones Ferry Rd. @ SW Nyberg Rd. (Tualatin), Washington Co.	December 14, 1979
Columbia Excavating, Inc., No. 8573	NE Glisan St.-SE Division St. (Sound Barriers & Bikeway), Multnomah Co.	December 14, 1979
C. G. Gredvig, Inc., No. 8948	Willamina Ave.-26th Ave. (Forest Grove), Washington County	December 14, 1979
Poe Asphalt Paving, Inc. No. 8961	Wades Point-Joseph Wallowa County	December 18, 1979
Gervais Construction Co. No. 8744	Church St.-Mill St. (Silverton) Marion County	December 19, 1979
Sims Electric, Inc. No. 8913	W. Stewart Parkway @ W. Harvard Ave. (Roseburg) Douglas County	December 19, 1979

Contractor and Contract No.	Section and County	Acceptance Date
Douglas S. Coats Construction, No. 8847	Willow Creek (Morgan Street) Bridge, Morrow County	December 27, 1979

January 2, 1980 /s/ H. S. Coulter

H. S. Coulter, State Highway Engineer

8961

December 21, 1979

Safeco Insurance Company of America
1500 S.W. First Avenue
Portland, OR 97201

CON 5
#8961

Gentlemen:

Contract No. 8961 awarded to Poe Asphalt Paving, Inc. for work on the Wades Point-Joseph Section ofthe Wallowa Lake Highway in Wallowa County was completed on October 26, 1979, and accepted by the State Highway Engineer on December 18, 1979.

Final payment in the amount of $58,186.42 will be released to the contractor after December 27, 1979. The total contract amount is $1,174,730.72, including $6,434.69 for work performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely

C. W. Read
COMMISSION SERVICES

dms

cc: Poe Asphalt Paving, Inc.
615 Maple
Clarkston, WA 99403

bc: C. T. Kassey
Walt Hart
V. E. Skoog Attn: Dick Hacek
W. E. Schwartz

8961

10

Road Design Section 378-6558

Joseph A. Schlieski
Resident Engineer

December 7, 1979

Fred Eriksen
Fred Eriksen
Design Engineer Supervisor

Wades Point-Joseph Section
Wallowa Lake Highway
Wallowa County

The "as constructed narrative" mentions the fact that the location quantities were "windshield" estimate. With that in mind, I think you did very well in holding the construction costs to 2% over the contract amount.

I agree with your comments on scalping. In most cases a good product can not be obtained without doing it.

I believe the specifications on the use of diesel and Liquislip on the boxes of A.C. hauling vehicles have been revised, hopefully to alleviate the sticking problem.

FE:ab
cc: W. E. Schwartz

8961

Report #15 FINAL

FORM 81-734-2001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Wades Point - Joseph		WEEK ENDING: October 26, 1979
		SECTION PREFIX: 32-1117
HIGHWAY: Wallowa Lake		COUNTY: Wallowa
NAME OF JOB: Wades Point - Joseph	KIND OF WORK: Grading, Paving	
CONTRACTOR: Poe Asphalt Paving, Inc.	CONTRACT NUMBER: 8961	FEDERAL AID PROJECT NUMBER: State
DATE OF CONTRACT: June 23, 1979	DATE WORK STARTED: July 16, 1979	ESTIMATED COMPLETION DATE:
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 3 SUPERVISION: 1	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 275	CALENDAR DAYS USED 122
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED 44%
PROJECT AUTHORIZATION: $ 1,337,721.75		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST 100%
EXCLUSIVE OF ENGINEERING: $ 1,242,594.87	ENGINEERING AUTHORIZATION $ 95,126.88 This Week $2,052.96	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION 98%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 1,242,594.87	ENGINEERING COST TO DATE $ 47,286.81	DATE PROJECT WAS COMPLETED: October 26, 1979
ESTIMATED PERCENT: OVERRUN / UNDERRUN 0 %	PERCENT OF AUTHORIZATION 50 %	

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
		100	100	100			

	GRADING	BASE	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT	2.3		9.3			9.3
MILES PARTIALLY COMPLETED	2.3		9.3			9.3
MILES COMPLETED	2.3		9.3			9.3
TOTAL ESTIMATED QUANTITIES (CONTRACT)	12,600		20,700			42,200
TOTAL QUANTITIES CORRECTED TO DATE	12,800		25,000			43,200
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE	8,487		24,000			43,200
AVERAGE DAILY QUANTITIES	-		-			-
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME	-		-			-
NUMBER OF SHIFTS PER DAY	1		-			-
HOURS PER SHIFT	8		-			-

EQUIPMENT USED DURING THE WEEK:

Backhoe, Blade, trucks

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

		WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	21	Cldy, rain shw rs	1		
MONDAY	22	Cldy, shwrs	1		
TUESDAY	23	Cldy, shwrs	1		
WEDNESDAY	24	Cldy, shwrs	1		
THURSDAY	25	Cldy, shwrs	1		
FRIDAY	26	Cldy	1		Completion Date
SATURDAY	20	Ptly cldy, cool	1		

RECEIVED
OCT 29 1979
CONSTRUCTION BRANCH

Kelley, Richards, Hickmond, Berg, Hopkins, Inloes, Williams, Widmer, Johnson, Gebauer, Glenn, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY 21	No activity
22 MONDAY	Installing guard rail and thpe "C" end piceses Cont. removing excess material from drain ditches through out project.
23 TUESDAY	Completed installing guard rail and end pieces. Placing shld. aggr. where needed and shaping same.
24 WEDNESDAY	General clean up of project and shaping shlds.
25 THURSDAY	General cleanup of project and raking shoulders. Final inspection today with R. D. Hector.
26 FRIDAY	Resetting 3 regulatory signs and removing all temporary signing. Completion Date.
20 SATURDAY	No activity

REMARKS

All work satisfactorily completed October 26, 1979 - Completion Date.

Semi-final records will be submitted next week with the exception of test result summary, semi-final estimate, and contractor's payrolls.

SIGNED Joseph A. Schlieski LOCATION La Grande

Joseph A. Schlieski

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

SP-F216

8961

10

Form 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

La Grande, Oregon

May 10, 1979

RE ☐ RCE ☐ RTE ☐ ROE ☐

RFA ☐ FILE: ☐

MAY 10 1979

RECEIVED
REGION 5 OFFICE

FROM: JAS

SUBJECT: Wades Point - Joseph O'Lay
[redacted]
Wallowa County

TO: R. D. Hector
Region Construction Engineer
La Grande

"Approach list"

Attached find list of approaches on the subject project between M.P. 56.90 to 63.19 and 68.73 - 71.07.

Vorsteeg
Anderson
Christenson
Olson
Sullivan
Terpin
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RECEIVED
MAY 17 1979
ROAD DESIGN SECTION

Do Not File ☐
Return To
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Action

cc: file

cy Terpin w/ext attachments

REFERRED TO
Board Staudenmayer
Cole Sample
Erikson Watson
Hager Dorn Lou
Return Discuss For File Copy Dun
BY FINAL DESIGN ENGINEER

RECEIVED
MAY 16 1979
LOCATION SECTION

NOTED
F. E. TERPIN

Form -734-[illegible]X

OREGON STATE
HIGHWAY DIVISION
May 8, 1979

TABULATION SHEET
SHEET 1 OF 2 SHEETS

Prairie Creek-Joseph
Wallowa Lake Highway (Oregon 82)
M.P. 68.73 - 71.07

EXISTING ROAD APPROACHES

M.P.		Side	Surface	Field	House	Other		Appr. Permit on File Dist. Office		M.P.	Sta.
68.73	Begin Project										
68.90		Rt.	Gravel	X				No			
69.26		Rt.	"		X			No			
69.37		Rt.	"		X			No			
69.48		Rt.	"		X			No			
69.50		Rt.	"		X			Yes		69.48	1941+13
69.50		Lt.	"	X				No			
69.51		Rt.	"		X			Yes		69.51	1942+71
69.51		Lt.	"	X				No			
69.55		Rt.	"			Motel & Trailer Court		No			
69.57		Rt.	"			Motel & Trailer Court		No			
69.60		Rt.	"			Valley Rock Shop		Yes		69.60	1934+00
69.64		Rt.	"		X			Yes		69.63	1949+05
69.72		Lt.	Paved			USFS Ranger Station		Yes		69.74	1954+86
69.76		Lt.	"			USFS Ranger Station		Yes		69.77	1955+44
69.75		Rt.	Gravel		X			No			
69.79		Lt.	"			Kit Const. Co.		Yes		69.83	1959+61. 49
69.88		Lt.	"	X				Yes		69.90	1963+31.
70.03		Lt.	"		X			No			
70.04		Rt.				County Road					
70.18		Lt.	"		X			Yes		70.19	1978+63
70.30		Lt.	"		X			Yes		70.31	1984+96
70.31		Rt.	"		X			*			
70.32		Rt.	"		X			No			

*This Approach Permit needs to be checked out. M.P. 70.29, 1994+46, Permit Station (1983+38, Corrected Station).

Form -734-2449X

OREGON STATE
HIGHWAY DIVISION

TABULATION SHEET
SHEET 2 OF 2 SHEETS

M.P.		Side	Surface	Field	House	Other		Appr. Permit on File Dist. Office		M.P.	Sta.
70.40		Rt.	Gravel		X			Yes		70.38	1989+00
70.42		Rt.	"	X				Yes		70.40	1989+71
70.47		Lt.	"		X			No			
70.49		Rt.	"		X			Yes		70.45	1968+35
70.50		Rt.	"	X				Yes		70.52	1996+30
70.52		Rt.	"		X			Yes		70.52	1996+38
70.55		Lt.	Paved			County Road					
70.93		Lt.	Gravel		X			No			
70.97		Lt.	"		X			No			
71.03		Rt.	Paved		X			No			
71.03		Lt.	"		X			No			
71.07		Rt.	"			County Road					
71.07	End Project										

Form -734-3049X

OREGON STATE
HIGHWAY DIVISION
May 8, 1979

TABULATION SHEET
SHEET 1 OF 2 SHEETS

Wades Point - Trout Creek
Wallowa Lake Highway (Oregon 82)
M.P. 56.90 - 63.19

EXISTING ROAD APPROACHES

M.P.		Side	Surface	Field	House	Other		App. Perm. & on file Dist. Office		M.P.	Sta.
56.90	Begin Project										
56.90		Lt.	Gravel	X				No			
56.99		Rt.	"		X			No			
57.04		Rt.	"			Farm Buildings		No			
57.05		Lt.	Paved			County Road					
57.65		Rt.	Gravel			Quarry		No			
57.78		Lt.	"		X			No			
57.81		Rt.	"	X				No			
58.10		Rt.	"	X				No			
58.16		Rt.	"	X				No			
58.22		Rt.	"	X				No			
58.22		Lt.	"		X			No			
58.59		Lt.	"	X				No			
58.60		Rt.	"		X			No			
58.65		Rt.	"	X				No			
58.78		Lt.	"		X			Yes		58.79	1378+75
58.92		Rt.	"			OSHD Stockpile Site					
59.08		Lt.	"	X				No			
59.29		Rt.	"	X				No			
59.49		Rt.	"	X				No			
59.62		Rt.	"	X				No			
59.71		Rt.	"	X				No			
59.73		Lt.	Paved		X			No			
59.77		Rt.	"		X			No			

Form -734-3048X

OREGON STATE
HIGHWAY DIVISION

TABULATION SHEET
SHEET 2 OF 2 SHEETS

M.P.		Side	Surface	Field	House	Other			Appr. Perm. on File Dist. Office	
59.96		Lt.	Gravel			General Material	Access; Source, etc.		No	
60.70		Lt.	"	X					No	
60.70		Rt.	Paved			County Road				
61.22		Rt.	Gravel	X					No	
61.22		Lt.	"	X					No	
61.68		Lt.	"			Farm Buildings			No	
61.69		Lt.	"		X				No	
61.70		Rt.	"		X				No	
62.01		Rt.	"		X				No	
62.12		Lt.	"	X					No	
62.17		Rt.	"	X					No	
62.50		Rt.	"		X	Freels R.R. Siding			No	
62.62		Rt.	"			Propane Tank Storage Area			No	
62.95		Lt.	"			Genl. Access: Material Source, etc.			No	
62.99		Lt.	"		X	Saw Shop			No	
63.15		Rt.	"	X					No	
63.18		Lt.	"	X		Farm Bldgs. & Quarry			No	
63.19	End Project									

P.P. 60.12 to 63.19 Access Controlled
See R/W Map #9B-2-15

8961 10

Salem, Oregon
May 8, 1979

Fred Eriksen
Design Engineer Supervisor

Leonard L. Wallace
Bridge Design Engineer

Wades Point-Joseph Section
Wallowa Lake Highway
Wallowa County

We are preparing plans for a state overlay project for a June 28, 1979 contract letting.

The proposed pavement overlay thickness is four inches from M.P. 56.90 to M. P. 63.19 and M.P. 68.73 to M.P. 71.07.

One structure is within the project limits at M.P. 59.92: Wallowa River Bridge No. 0723-A, 280 long and 40 wide.

Please review the structure and furnish us with your recommendations for handling the overlay at the structure and other work, if any, to be included in this project.

FE:mm
cc: Dick Lau

1 Versteeg ✓
Anderson
2 Christensen
Olson
Copy Sullivan
Terpin
3 Trout
Wekerlig

RECEIVED
MAY 0 8 1979
ROAD DESIGN SECTION

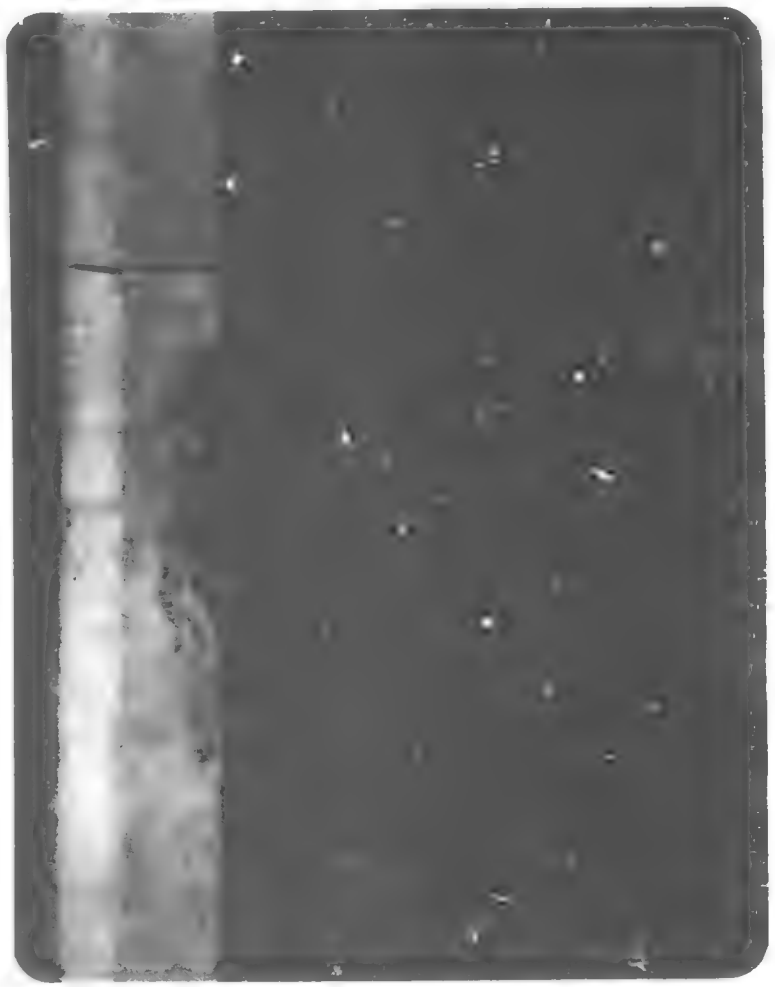
Do Not File
Return To
Bring Up /
Action

Vertrees K
Christensen Doc
Olson
Stergios E
Sullivan JWS
Scott
Savage

RECEIVED
FEB 07 1978
ENGINEERING SECTION

Trout T
Do Not File
Return To
Bring Up
Action

In and Circulate



REFERRED TO

Beard 5 Dorn
4 Cole Sec. T Sample
3 Eriksen 2 Watson
Hager Leu
Return Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

.1979 SW 117th Ave. - 8062
.SW Hocken Ave. Beaverton
.NE Sandy-SE Flavel Portland

5499

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

FILED
NOV 21 1980
NORMA PAULUS
SECRETARY OF STATE

November 20, 1980

IN REPLY REFER TO
FILE NO.:

CON 5
#8962

Valentine Surfacing Company
P. O. Box 86
McMinnville, OR 97128

RECEIVED
NOV 21 1980
NORMA PAULUS
SECRETARY OF STATE

Gentlemen:

This will acknowledge receipt of your letter of November 6 stating that you have a claim for pavement removal, flagging and force account work in the amount of $15,093.87 against the bond on Contract No. 8962.

Your letter states this is in connection to the R. A. Hatch Company Contract No. 8962 for paving on Southwest 117th Avenue-Southwest Hocken Avenue (Beaverton) and Northeast Sandy Boulevard-Southeast Flavel Street (Portland) Sections of the Tualatin Valley and Cascade Highways in Washington and Multnomah Counties

Your letter will be sent to the Secretary of State's office for filing and we will send copies to the contractor, surety and agent.

Please notify this office when your claim has been paid.

RECEIVED
NOV 24 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

Sincerely,

Robert W. Gorman
COMMISSION SERVICES

FKM:dmc
cc: R. A. Hatch Co.
P. O. Box 201
Bend, OR 97701

Employers Insurance of Wausau
2000 Westwood Drive
Wausau, WI 54401
Attn: James Taylor, Surety Claim Dept.

NOTED ON CARD
11-25-80 dmc

Corroon & Black of Oregon
1600 S.W. 4th Avenue
Portland, OR 97201

bc: Secretary of State - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

(503) 472-4155

VALENTINE SURFACING CO.

P. O. BOX 86
1305 LAFAYETTE AVE.
McMINNVILLE, OR 97128

December 22, 1980

Oregon State Department of Transportation
Highway Accounting
434 Transportation Building
Salem, OR 97310

RE: OSHD Contract 8962
SW 17th Ave.

Gentlemen:

We are hereby notifying your office that Valentine Surfacing Co. has received payment in full for work performed on the above referenced project, from R. A. Hatch Co. Payment was received on December 12, 1980.

Sincerely,

VALENTINE SURFACING CO.

By C R Valentine
Charles R. Valentine
President

CRV/mgd

cc: R. A. Hatch Co.
Corroon & Black
Employers Insurance of Wausau

RECEIVED
DEC 29 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

RECEIVED
DEC 24 1980
HIGHWAY ACCOUNTING

November 20, 1980

Valentine Surfacing Company
P. O. Box 86
Hillsboro, OR 97123

OCH 5
#8962

Gentlemen:

This will acknowledge receipt of your letter of November 6 stating that you have a claim for pavement removal, flagging and force account work in the amount of $28,099.37 against the bond on Contract No. 8962.

Your letter states this is in connection to the R. A. Hatch Company contract No. 8962 for paving on Southwest 117th Avenue-Scholls Ferry Road Hocken Avenue (Beaverton) and Northeast Sandy Boulevard-Northeast Fixed Street (Portland) Sections of the Tualatin Valley and Cascade Highways in Washington and Multnomah Counties.

Your letter will be sent to the Secretary of State's office for filing and we will send copies to the contractor, surety and agent.

Please notify this office when your claim has been paid.

Sincerely,

Robert W. Cozzens
Commissioner Secretary

RWC:dms
cc: R. A. Hatch Co.
P. O. Box 291
Bend, OR 97701

Employers Insurance of Wausau
2000 Westwood Drive
Wausau, WI 54401
Attn: James Taylor, Surety Claim Dept.

Cozzens & Black of Oregon
1000 S.W. 4th Avenue
Portland, OR 97201

bc: Secretary of State - Please acknowledge receipt of the attached claim on the enclosed copy of this letter.

bbc: Jack Sollis

NOTED ON CARD
11-20-80
dc

(503) 472-4155

VALENTINE SURFACING CO.

P. O. BOX 86
1305 LAFAYETTE AVE.
McMINNVILLE, OR 97128

November 6, 1980

Oregon State Department of Transportation
Highway Accounting
434 Transportation Building
Salem, OR 97310

ATTEN: V. E. Skoog, Highway Controller

RE: OSHD Contract # 8962

Gentlemen:

Notice hereby is given that the undersigned, Valentine Surfacing Co., has a claim for pavement removal, flagging and force account work in the sum of $15,093.87 dollars against the bond taken from R. A. Hatch Co. and Employers Insurance of Wausau for the work of SW 117th Ave.-SW Hocken Ave. (Beaverton) and NE Sandy Blvd.-SE Flavel St. (Portland), OSHD Contract No. 8962

Sincerely,

VALENTINE SURFACING CO.

By C. R. Valentine
Charles R. Valentine
President

CRV/mgd
cc: R. A. Hatch Co.
Corroon & Black
Employers Insurance of Wausau

RECEIVED
NOV 10 1980
HIGHWAY ACCOUNTING

#-8962 7-8-80 L.

REPORT OF ACTION UNDER DELEGATED AUTHORITY

ASSISTANT STATE HIGHWAY ENGINEER

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Siuslaw Construction Co. No. 8884	SE 142nd Ave. Br. over Johnson Cr. (Portland)	June 12, 1980
Rogue River Paving Co., Inc. No. 9042	3rd St.-6th St. (Central Point)	June 12, 1980
Tawn Mar Construction Co. No. 9050	Antelope Rock Production	June 12, 1980
J. Arlie Bryant, Inc. No. 9051	Fossil Rock Production	June 12, 1980
Waconda West Const. No. 8470	Columbia River (Astoria) Bridge	June 17, 1980
Morse Bros., Inc. No. 8690	Cox Cr.-S. Elm St. (Albany)	June 17, 1980
Hamilton Electric, Inc. No. 8914	Beaverton Signal (Fred Meyer Access)	June 17, 1980
Clarke Electric, Inc. No. 8832	McKenzie Hwy. @ 3rd St. (Springfield)	June 18, 1980
Cascade Const. Co., Inc. No. 8875	SW 170th Ave.	June 19, 1980
J.C. Compton Co. No. 8060	Canyonville-Glendale Jct.	June 25, 1980
J.C. Compton Co. No. 8865	Lane County Line-Elbow Lake	June 25, 1980
R. A. Hatch Co. No. 8962	SW 117th Ave.-SW Hocken Ave. (Beaverton) & NE Sandy Blvd.-SE Flavel St. (Portland)	June 25, 1980
Eucon Corp. No. 8922	Columbia River Hwy.-Hermiston	July 2, 1980
Wildish Corvallis Const. Co. No. 9014	Squaw Cr. Jct.-Pac. Hwy. West (Corvallis)	July 3, 1980

July 8, 1980

C. T. Keasey
Asst. State Highway Engineer

#8762

July 1, 1980

Gerrsen & Bleak of Oregon
1600 S.W. 4th Avenue
Portland, OR 97201

CCN 5
Contract #8962

Gentlemen:

On June 27, 1980, we wrote to you concerning release of final payment on Contract No. 8962 awarded to R. A. Heath Co. for paving on the Southwest 117th Avenue-Southwest Hocken Avenue (Beaverton) and Northeast Sandy Boulevard-Southeast Wood Street (Portland) Sections of the Tualatin Valley and Columbia Highways in Washington and Multnomah Counties.

The total contract amount is $948,836.73 including $86,622.66 for work performed under force account.

Sincerely,

Debora W. Gunnesa
Contract Services

dwg
cc: R. A. Heath Co.
P. O. Box 221
Bend, OR 97701

Employers Insurance of Wausau
Attention: James Taylor
2550 Westwood Drive
Wausau, WI 54401

bc: G. T. Keaney
Walt Hart
E. L. Hardt

8962

STATE OF OREGON

INTEROFFICE MEMO

Highway Construction 378-6318

FILE: CON 5

TO: E. L. Hardt
Region 1 Engineer

DATE: June 13, 1980

FROM: Gareld Inloes
EEO & Labor Compliance Manager

SUBJECT: SW 117th Ave.-SW Hocken Ave. & NE Sandy Blvd.-SW Flavel St.
Contract 8962
Pending Minimum Wage Violation

In response to Willard Hoffman's letter of June 6, 1980 regarding the subject project, it is recommended that the Third Notification be submitted and dated June 4, 1980. The June 4 date is recommended, as this is the date E. A. Hatch Co. responded to the problem under discussion.

The release of the retainage and finalizing of the project is at the advice of Chief Counsel, Jack Sollis.

GI:mk

cc: Paul Tiffany, Oregon Bureau of Labor
H. S. Coulter/att.
W. E. Hoffman
Jack Sollis/att.

RECEIVED
STATE HWY ENGR
JUN 16 '80
REFER TO
FOR
Info | Innes | R/D | D/R | Sign | Act | File

125-1367

RECEIVED
JUN 10 1980
CONSTRUCTION BRANCH

OREGON STATE HIGHWAY DIVISION
INTER-OFFICE CORRESPONDENCE
Portland, Oregon 97266
6 June 1980

FILE:

FROM: W.E. Hoffman
Resident Engineer

TO: Ed Hardt
Region Engineer

SUBJECT: S.W. 117th Ave.-S.W. Hocken Ave.
& N.E. Sandy Blvd.-S.E. Flavel St.
Contract No 8962

The accompanying letter from the contractor on subject project is self-explanatory.

Would you please transmit it to the proper place for consideration.

We will re-submit the 3rd notice when authorized to do so.

W E Hoffman

W.E. Hoffman
Res. Engr.

WEH/dd

cc: M.A. Hatch

CC: Bryant Jackmond - with attach.

R.A. Hatch Co.
General Contractors
Post Office Box 201
Bend, Oregon 97701
(503) 382-8418

JUN 8 1980

June 4, 1980

Mr. Willard Hoffman
Resident Engineer
Oregon State Highway Division
9421 S.E. Glenwood
Portland, OR 97266

Re: OSHD Contract 8962 (82nd Ave.)
Retainage

Dear Mr. Hoffman:

In your letter of February 14, 1980, signed by Wayne Schulte, it is stated that you are unable to reduce retainage because of a possible minimum wage violation.

We have reviewed the claim with Mr. Blackwell as you suggested, and our attorney is corresponding with Mr. Tiffany of the Dept. of Labor in Portland. We are protesting the claim and will be fighting it -- in court if necessary.

The important point is that we are bonded, in accordance with the contract provisions, by Employers of Wausau. If the final determination is that we owe the money it will be paid. The State and the people of Oregon pay dearly for that protection through the inclusion of bond premium in contract bid prices, and that should be sufficient.

The State has no reason or right to withhold funds under these circumstances. Since you did reduce retainage to $5000, which we appreciate, we weren't overly concerned when we received your letter. But if this claim is holding up finalizing the job, and you expect to continue holding retainage, or to deduct the alleged violation amount, then we are extremely concerned.

It is very important to us that you let me know immediately what the expected finalization date is, or what, if anything, is holding it up.

All work has been completed, and we see no reason why the job cannot be closed now, with the State relying on the bonding company to ensure that all payments required of the R. A. Hatch Co. are made. Please reply as soon as possible.

Yours truly,

R. A. HATCH CO.

Gerald B. Johnston
Vice President

GBJ:lst

cc: James Noteboom, Atty.

162

March 31, 1980

Mr. Joseph K. Yasbeck, Jr.
Bokliger, Hampton & Taylor
Attorneys at Law
1600 S.W. Cedar Hills Boulevard, Suite 102
Portland, OR 97225

Dear Mr. Yasbeck:

Enclosed is a photocopy of the performance bond for the R. A. Hatch Company Contract No. 8962.

The contract was awarded by the Transportation Commission on June 12, 1979. Our records show that the job was completed September 28, 1979. The job has not yet been accepted by the Commission.

Sincerely,

Robert W. Gorman
COMMISSION SERVICES

sbm

Encl.

BOLLIGER, HAMPTON & TARLOW, P. C.
A PROFESSIONAL CORPORATION
ATTORNEYS AT LAW

RALPH BOLLIGER
LEWIS B. HAMPTON
ARTHUR L. TARLOW
F. GORDON ALLEN
DOUGLAS P. DEVERS
JOSEPH A. YAZBECK, JR.

1600 S.W. CEDAR HILLS BLVD.
SUITE 102
PORTLAND, OREGON 97225
TELEPHONE (503) 641-7171

March 19, 1980

Mr. Orv Gormsen, Director
State of Oregon, Dept. of Transportation
Transportation Building, Room 121
Salem, Oregon 97301

Re: Mid-Oregon Crushing Co. vs. R. A. Hatch, Contract No. 8962

Dear Mr. Gormsen:

We are attorneys for Mid-Oregon Crushing Co.

Would you please provide us with a copy of the bond provided by Insurance of Wausau for R. A. Hatch Company on the above referenced contract.

Would you also please let me know the date on which the contract was let to R. A. Hatch Company. Thank you for your cooperation in this matter.

Very truly yours,

JOSEPH A. YAZBECK, JR.
For the Firm

JAY/ss

cc: Mid-Oregon Crushing Co.

RECEIVED
MAR 21 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

541 #8762

VICTOR ATIYEH
GOVERNOR

Department of Transportation

TRANSPORTATION BUILDING, SALEM, OREGON 97310

FILED
MAR 24 1980
NORMA PAULUS
SECRETARY OF STATE

March 24, 1980

RECEIVED
MAR 24 1980
NORMA PAULUS
SECRETARY OF STATE

IN REPLY REFER TO
FILE NO.:
COM 5
#8962

Mid-Oregon Crushing Co.
P. O. Box 518
Redmond, OR 97756

Attention: Ron Pendinger
Business Manager

4-9-80
Filed
Orig. contract
and files

Gentlemen:

This is to acknowledge receipt of your letter dated March 12, 1980, giving notice of a claim which you have against R. A. Hatch Co., principal, and the surety, Employers Insurance of Wausau, for equipment rental and labor in the amount of $8,959.60.

Your claim is connected with Contract No. 8962, the S.W. 117th Avenue-S.W. Hocken Avenue (Beaverton) and N.E. Sandy-S.E. Flavel (Portland) Sections job in Washington and Multnomah Counties.

We are sending a copy of this letter, as well as your letter, to the Secretary of State for filing.

Please advise this office when this claim has been settled.

Sincerely,

Robert W. Gormsen
COMMISSION SERVICES

RWG:ikkr
cc: R. A. Hatch Co.
P. O. Box 201
Bend, OR 97701

Employers Insurance of Wausau
2000 Westhaven Drive
Wausau, WI 54401

Gorman & Black of Oregon
1600 S.W. 5th
Portland, OR 97201

RECEIVED
MAR 27 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

bc: Secretary of State - Please acknowledge receipt of this attached claim on the enclosed copy of this letter.

MID-OREGON CRUSHING CO.
MID-OREGON READY MIX
p. o. box 519 redmond, oregon 97756

March 12, 1980

Mr. R. Gormsen, Director
STATE OF OREGON
Department of Transportation
Room 121 - Transportation Bldg.
Salem, Oregon 97310

Dear Mr. Gormsen:

Notice is hereby given that the undersigned, Mid-Oregon Crushing Co., has a claim for equipment rent and labor to wit: an operated portable pugmill to mix asphalt and aggregate, in the sum of $8,959.60 against the bond taken from R. A. Hatch, principal and the Insurance of Wausau, surety, for the work DOT Contract #8962, the S.W. 117th Avenue - S.W. Hocken Avenue (Beaverton) and N.E. Sandy - S.E. Flavel (Portland) job.

Very truly yours,
MID-OREGON CRUSHING CO.

Ron Peninger

Ron Peninger
Business Manager

cc: R. A. Hatch
Carroon & Black of Oregon, Inc.
Insurance of Wausau

RECEIVED
MAR 14 1980
SERVICES
DEPARTMENT OF TRANSPORTATION

#8962.

State of Oregon
Attention R. Gormsen, Director
Department of Transportation
Room 121, Transportation Building
Salem, Oregon 97310

Wausau Insurance Companies

2000 Westwood Drive • Wausau, Wisconsin 54401
(715) 845-5211

Mid-Oregon Crushing Company
Attention Ron Teninger
Business Manager
Post Office Box 519
Redmond, Oregon 97756

March 20, 1980

Claim 68-OBSV
Bond 2350-40-036876
Principal - R. A. Hatch Company
Obligee - State of Oregon,
Transportation Commission
Project - Contract Number 8962,
Sections SW 117 - SW Hocken
(Beaverton) and NE Sandy -
SE Flavel (Portland)

COPY

EMPLOYERS INSURANCE OF WAUSAU A Mutual Company, successor to Employers Mutual Liability Insurance Company of Wisconsin, as Surety, acknowledges receipt of your letter dated March 12, 1980.

At this time, the Surety is requesting a report from our principal in respect to allegations presented in your letter. As soon as we have more information from our principal, the Surety will submit a detailed reply.

Please forward all further communications to the Wausau Insurance Companies, Attention James Taylor, Surety Claim Department, 2000 Westwood Drive, Wausau, Wisconsin, 54401.

NOTED
FRAN NEAVOLL

RECEIVED
MAR 24 1980
COMMISSION SERVICES
DEPARTMENT OF TRANSPORTATION

James Taylor
Surety Claim Attorney
HO 78

8962

Portland

ROAD DESIGN SECTION

DES 16-1

March 7, 1980

W. E. Hoffman
Resident Engineer

Lyle K. Watson
Final Design Supervisor

Subject: S.W. 117th Ave.-S.W. Hocken Ave. (Beaverton) Section and N.E. Sandy Blvd.-S.E. Flavel St. (Portland) Section
Tualatin Valley & Cascade Highways
Washington & Multnomah Counties

Your "As-Constructed Narrative Report" has been reviewed by this office and the problems of design have been noted.

The experience gained from this project will be considered in the design of future projects.

LKW:ja

Form 81.734.3070

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Portland, Ore. 97266

February 12, 1980

FILE:

FROM: W.E. Hoffman
Res. Engr.

TO: File

SUBJECT: A.C. Compaction
S.E. 117th Ave.-S.W. Hocken Ave. & N.E. Sandy Blvd.-S.E. Flavel St.
Contract No: 8962

This State financed project involved shoulder strengthening on both sections; Outside lane overlay on 82nd Ave; Full one lift overlay on the T.V. Hwy. All work was done in very heavy traffic. The base lift was confined to the shoulder strengthening area, widths being from 6 to 8 feet.

The base lift on 82nd Ave. was tested with a nuclear guage. No correlation was made with cores. The chart shows one failing test out of 25 taken. The machine was not used for any subsequent work because it was needed on I-205 and more particularly because there was no available person to use it.

The base was not tested on the T.V. Hwy. for these reasons. Compaction effort was good, and in addition the still warm asphalt was subject to very heavy traffic at the end of the days paving.

The top on both sections was cored with but 3 failing tests out of 24 on 82nd Ave. and with one out of 10 on the T.V. Hwy.

After considering the inability to furnish the contractor with timely information, the working conditions involving much heavy traffic, and the general good quality of the completed work, I do not believe a penalty situation exists and do not recommend that any be exacted.

The results of the nuclear testing when we could do it were good enough that we were not uncomfortable about suspending it when necessary.

1 Versteeg ✓
Anderson
2 Christensen
Olson
Sullivan copy
Terpin
Trout
Wakerlig

RECEIVED
FEB 22 1980
ROAD DESIGN SECTION

Do Not File ☐
Return To
Bring
Action

W.E. Hoffman
Res. Engr.

STATEMENT OF OVERRUN AND UNDERRUNS

Project: S.W. 117th. Ave.-S.W. Hocken Rd. and N.E. Sandy Blvd.-S.E. Flavel St.
Highway: Tualitin Valley and Cascade
County: Washington/Multnomah

Contract No.: 8962
Prefix: 026-1121
F.A. No.: State Project

Item No.	Item	Unit	Original	Semi-Final	% over
	SUMMARY				
	Bid Items		$ 851,280.00	$ 900,909.75	+5.8
	Anticipated Items		$ 76,000		
	Contingencies		$ 41,727		
	Engineering		$ 83,455.20	30,000	-64
	Liquidated Damages		$ —		
	Increased Authorization		$ 178,387.25		
	Total		$1,237,422.80	1,043,858.73	-16.6

All substantial changes were evaluated and only those listed below meaningfully affected the total project cost.

	INDIVIDUAL OVERRUNS AND UNDERRUNS				
5	Flagmen	Hour	$ 50,000	$ 41,200	-17.6
	All flagging nescessary for trafic control and safety was used				
6	Cold Plane Pavement Removal	Sq.Yd.	$203,400	$193,750	-4.7
7	General Excavation	Cu.Yd.	$108,500	$ 92,232	-15%
10	Emulsified Asphalt Treated Base Mixture	Cu.Yd.	$131,500	$111,450	-15.2
11	Emulsified Asphalt in Mix.	Ton	$ 95,000	$ 26,206	-72.4
12	Class 'C' Asphalt Cement Mixture	Ton	$184,000	$217,938	+18.4
	Quantities used were needed to complete project.				
14	Asphalt in Tack Coat	Ton	$ 3,400	$ 7,610	+124
	Additional tack was needed to adiquately complete the project.				

Bid Items 1,2,6,7, and 10 thru 14 were erroneously calculated on the original authorization and a Expected Overrun of Project Authorization (form 3372) was completed and signed by the apropriate persons. These amounts are included in the above Bid Items.

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Form 81.734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

Portland, Ore. 97266

January 30, 1980

FILE:

FROM: W.E. Hoffman
Res. Engr.

TO: File

SUBJECT: S.W. 117th Ave.-S.W. Hocken Ave. & N.E. Sandy Blvd-S.E. Flavel St. Contract No: 8962
Narrative Report

Project: S.W. 117th Ave-S.W. Hocken Ave and N.E. Sandy Blvd.-S.E. Flavel St.

Contractor: R.A. Hatch

Subcontractors: Cold Planing- Valentine Surfacing
Utility Adjustments- Hopsing Construction

Date of Contract: June 12, 1979
Work Started: July 16, 1979
Work Completed: Sept. 28, 1979

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The purpose of the contract was to reinforce the outside lanes of Cascade Hwy. (82nd Ave) in East Portland and Tualatin Valley Hwy. in Beaverton. These were both 2 lane P.C.C. streets that had been widened to 4 lane by overlaying the concrete and the existing shoulders. Both sections are presently curbed. On 82nd Ave. the area between the edge of the P.C.C. and the curb was excavated and backfilled with reclaimed A.C. chips from various cold planing operations. The corresponding area on the Tualatin Valley Hwy. was cement treated in place.

At the pre-construction conference a major error was discovered in the bid quantity for Cold Plane Pavement Removal. Apparently when the original quantities for the 82nd Ave. portion of the contract were calculated a 7-foot instead of 12-foot width was used. 7 feet was the width of the general excavation but cold planing extended an additional 5 feet into the roadway and it was this strip that was forgotten.

Region staff and ourselves also provided Salem with a more precise number and length of street intersections to be encountered. Some of the intersections were cold planed but none were excavated because of the old underlying portland cement concrete pavement.

Based on the updated information the estimated quantity for cold planing was revised from 65,400 to 101,700 Sq.Yds. Several related bid items were effected by the street intersection lengths and as a consequence those quantities also increased. A Request for Additional Authorization was submitted and approved to cover the added costs. This was agreeable to the contractor and documented with P.A. No:1

Traffic Control:

Both highways are very heavily traveled, particularly in commuting hours. Work was not attempted during rush hours. The specified work times fit the actual conditions well. A complicating factor was the work of other agencies going on in each section. All were utility relocations on 82nd Ave. In Beaverton massive urban renewal was going on with most of the streets in the area closed, torn up, or being reconstructed. This naturally increased highway congestion.

This contractor is experienced in traffic control and his lane closures went smoothly.

There was some disruption of traffic on 82nd Ave. because the base material was not paved over soon after placing. This was necessarily somewhat rough being rolled up to meet driveways and tended to slow the traffic. Availability of material was the problem and will be discussed under paving.

Utility Adjustments:

Both Cities preferred to have water valve and meter boxes and manholes adjusted by the contractor. These adjustments, including catch basins were all made on force account.

This project was two seperate projects each in a different city which had been combined for reasons of a basic similarity of treatment. From here on they will be discussed seperately. Work started with unit B so it is discussed first.

N.E. Sandy Blvd. to S.E. Flavel St: This was on the Cascade Hwy., 82nd Ave. in Portland, (Unit B)

Cold planing, excavating, mixing and placing of cold planed chips.

The contractor elected to setup the pugmill for mixing the cold planed chips, which were used for subgrade material with emulsified

asphalt on private property at 80th.Ave. and Powell Blvd. which he thought had been cleared for this operation. The City Building Dept. thought otherwise and ran him off.

The Special Provisions allowed the contractor to set up at the stockpile site at S.E. 7th Ave. and S.E. Division St. The City would not allow this either. It was arranged with District 2-B that I-205 R/W at Powell Blvd. could be used and the pugmill was eventually set up and used there. All this delayed and confused the start of the project.

The specifications stated that 6,000 Cu.Yds. of cold planed material was available at S.E. 7th Ave. and S.E. Division St. use of which was mandatory. Additional needed beyond what was generated on the project was to come from 8,000 Cu.Yds. at Union Ave.- Swift Rd. which was 8 miles further from the project.

There was an estimated 2,800Cu. Yds. of material at 7th and Division, 3,200 Cu.Yds. short of the promised 6,000. District 2-B hauled similar material from an additional source to the pugmill site to make up the shortage.

The concept of using cold planed A.C. as a base material is a good one. It handles well, compacts well and soon reconsolidates. It takes temporary traffic without raveling but of course would not do for permanent pavement. The added emulsion helps in all this but I think the chips would work well enough alone.

Traffic detector loops were mostly avoided in the cold planing. 7 were inadvertently cut. 1 was well marked and definitly the fault of the contractor. This was repaired at his cost. 3 of the others were unknown and the other 3 were overlooked by the inspectors. These were repaired as extra work.

Paving: The contractor had trouble obtaining A.C. material because of shortages and allotments of asphalt to his supplier. His planned supplier, Willamette Western, started supplying the base lift but soon ran out. The contractor turned to Porter Yett Co. to finish the base. This resulted in material from two sources but it was not intermixed. Traffic conditions dictated that the work continue and the substitution was allowed. The Yett plant exausted its aggregate supply but had oil available. So for the top lift the contractor purchased aggregate from Columbia West and hauled it to the Yett plant for mixing. He was also able to get mix from Willamette Western at this time, so he used 2

paving crews on the top. One worked from the North and one from the South. The two mixes were never intermixed and only met at the center of the project.

S.W. 117th Ave.- S.W. Hocken Ave. This was on the Tualatin Valley Hwy. through the City of Beaverton. (Unit A)

Cold Planing: Cold planing was specified to be done on the curb lanes in daylight hours and on the center lanes at night. All the old concrete pavement was to be uncovered on this unit. The contractor elected to work one shift by starting at 6:30 PM at the curb and working until dark at 9PM then switching to the center. It worked very well with minimal traffic interference.

The contractor elected to excavate the A.C. below the edge of the concrete pavement as provided in 309.32. The material was hauled to another project of his for fill.

Cement Treatment: The space between the curb and the concrete pavement which was to be treated was too narrow for the specified mixing equipment to work. The width was further constricted by numerous catch basins jutting 2 feet into it. It was necessary to use narrower and lighter mixing equipment to get the work done. It was not possible to mix the clay subgrade into the treated area. The full depth of existing base rock was well mixed with the cement.

I strongly recommend that treatment in place not be considered in constricted areas less than 12 feet wide.

To get the lane back under traffic, or more correctly, to protect the cement treatment when traffic took it over, coned or not, the base lift of A.C. was bladed over the finished base and rolled.

Paving: As mentioned, the base was placed over the treated areas as soon as possible as a protection to them. No breakup or displacement was seen.

The wearing surface was placed by machine and overlaid the full width of the street.

A.C. material for this unit was all of Columbia West aggregate mixed by Porter Yett.

W.E. Hoffman
Res. Engr.

8962

29

2-22-80

Project: S.W. 117th. Ave.-S.W. Hocken Rd. and N.E. Sandy Blvd.-S.E. Flavel St.
Highway: Tualitin Valley and Cascade
County: Washington/Multnomah

Contract No.: 8962
Prefix: 026-1121
F.A. No.: State Project

Item No.	Item	Unit	Original	Semi-Final	(+or-)
	SUMMARY				
	Bid Items		$ 851,280.00	$ 900,909.75	+5.8
	Anticipated Items		$ 76,000		
	Contingencies		$ 41,727		
	Engineering		$ 83,455.20	30,000	-64
	Liquidated Damages		$ —		
	Increased Authorization		$ 178,387.25		
	Total		$1,237,422.80	1,043,858.73	-16.6

All substantial changes were evaluated and only those listed below meaningfully affected the total project cost.

	INDIVIDUAL OVERRUNS AND UNDERRUNS				
5	Flagmen	Hour	$ 50,000	$ 41,200	-17.6
	All flagging nescessary for trafic control and safety was used				
6	Cold Plane Pavement Removal	Sq.Yd.	$203,400	$193,750	-4.7
7	General Excavation	Cu.Yd.	$108,500	$ 92,232	-15%
10	Emulsified Asphalt Treated Base Mixture	Cu.Yd.	$131,500	$111,450	-15.2
11	Emulsified Asphalt in Mix.	Ton	$ 95,000	$ 26,206	-72.4
12	Class 'C' Asphalt Cement Mixture	Ton	$184,000	$217,938	+18.4
	Quantities used were needed to complete project.				
14	Asphalt in Tack Coat	Ton	$ 3,400	$ 7,610	+124
	Additional tack was needed to adiquately complete the project.				

Bid Items 1,2,6,7, and 10 thru 14 were erroneously calculated on the original authorization and a Expected Overrun of Project Authorization (form E372) was completed and signed by the apropriate persons. These amounts are included in the above Bid Items.

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FORM 81-734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

NAME OF JOB: S.W. 117th Ave.-Hocken Rd. & N.E. Sandy Blvd.-S.E. Flavel St.	SECTION: S.W. 117th Ave.-S.W. Hocken & N.E. Sandy Blvd.-S.E. Flavel	WEEK ENDING: 9 February 1980
		SECTION PREFIX: 026-1121
	HIGHWAY: Tualatin Valley & Cascade	COUNTY: Washington/Multnomah
	KIND OF WORK: Paving	
CONTRACTOR: R.A. Hatch Company	CONTRACT NUMBER: 8962	FEDERAL AID PROJECT NUMBER: State Project
DATE OF CONTRACT: 12 June 1979	DATE WORK STARTED: 16 July 1979	ESTIMATED COMPLETION DATE: 28 September 1979
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS	CALENDAR DAYS USED
PROJECT AUTHORIZATION: $1,237,422.80	SPECIFIED COMPLETION DATE: 30 September 1979	PERCENT OF TIME ELAPSED: 99.1
EXCLUSIVE OF ENGINEERING: $1,147,294.90	ENGINEERING AUTHORIZATION: $83,455.20	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $1,147,294.90	ENGINEERING COST TO DATE: $32,000.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100
ESTIMATED PERCENT: OVERRUN / UNDERRUN ____%	PERCENT OF AUTHORIZATION: 38 %	DATE PROJECT WAS COMPLETED: 28 September 1979

ESTIMATED PERCENT COMPLETE (ROADWORK)

	CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
				GRADING	Cold Planing	Cem. Treat. Emuls.Asph. Exist. Mat. Treat. Base		PAVING
MILES IN PROJECT								
MILES PARTIALLY COMPLETED								
MILES COMPLETED								
TOTAL ESTIMATED QUANTITIES (CONTRACT)				13,400 CY	65,400 SY	7,600 SY	11,350 CY	12,000 Ton
TOTAL QUANTITIES CORRECTED TO DATE								
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE				13,180 CY	95,876 SY	6,415 SY	11,140 CY	15,542 Ton
AVERAGE DAILY QUANTITIES								
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME								
NUMBER OF SHIFTS PER DAY								
HOURS PER SHIFT								

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY	Showers	0		
MONDAY	Fair	0		
TUESDAY	Rain	0		
WEDNESDAY	Showers	0		
THURSDAY	Showers	0		
FRIDAY	Clear	0		
SATURDAY		0		

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CONSTRUCTION BRANCH

Keeney, Richards
Jackmond, Berg
Hopkins, Inloes
Williams, Widmer
Johnson, Gebauer
Glenn, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

2/3 SUNDAY	No activity
2/4 MONDAY	No activity
2/5 TUESDAY	No activity
2/6 WEDNESDAY	No activity
2/7 THURSDAY	No activity
2/8 FRIDAY	No activity
2/9 SATURDAY	No activity

REMARKS

Office work on Semi-Final.

SIGNED W.E. Hoffman Portland
W.E. Hoffman Res. Engr. LOCATION

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BOTH ARE INVOLVED. SUBMIT 3 COPIES

8962

FORM 81-734-3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE
Region 1 - Milwaukie
August 13, 1979

FILE:

FROM: MARION CRAFT
Region Construction Engineer

TO: ROBERT N. BOTHMAN
Administrator, Metropolitan Branch

SUBJECT: NE SANDY BLVD.-SE FLAVEL ST.
(82nd AVE.)
Contract No. 8962

REFERRED
Board, Soundheimer, Sorge, Weiss, Cole, Erikson, Hager, Dorn, Lee
Discuss Do File Copy Due
BY FINAL DESIGN ENGINEER

On Friday, August 10, Bill Hoffman and I met with the 82nd Avenue Businessmen's Association at their regular breakfast meeting, and discussed the on-going construction project along 82nd.

I gave a brief history of the past construction of 82nd Avenue, giving the width of the concrete pavement, the original gravel shoulder, how the shoulders became travel lanes, and the development of an almost continuous left turn lane at this point. The two basic reasons for this particular project was to stabilize the shoulders and to improve the surface drainage characteristics. Mention was made as to the responsibility for maintaining the roadway, signal system, and sewer system.

There was considerable discussion as to why we let the contractor open such a long length of work, on both sides of the street, instead of designating a specific, shorter length and completely finish this short length before going on to the next section. We were also asked why the work wasn't specified to be done at night in order to minimize the effect of the construction activities on businesses along 82nd.

Most of the discussion, most of the questions, and, it seemed to me, the biggest concern of nearly everyone there was the question of drainage. They seemed to be surprised and shocked that this project did not include any major corrective drainage work. Two areas of major concern were the low area north of the Banfield Freeway, and the area in the Yamhill Street-Mill Street area. Several people also were chagrined that there was no citizen involvement in the development of this project.

There was one particularly observant and discerning individual, who, after asking several questions, asked me what my job was and where that fit in the scheme of this particular project. When he found out that Hoffman and I did not become involved in the project until after it was contracted, he stated that we really weren't the people they should be talking to.

They were concerned about the roughness of the two outside lanes and the difficulty some of the businesses have had with their access, but I think their main concern is the long-range development of 82nd Avenue, particularly drainage and, also, there is a desire to be involved in and be heard from in any future planning.

MC/gw

cc: Bill Hoffman

cc: Hal Forsteus

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4 Sullivan
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City Pkd

STATE OF OREGON

INTEROFFICE MEMO

Road Design Section
DEPT.

378-6558
TELEPHONE

TO: C. T. Keasey
Construction Engineer

DATE: August 7, 1979

FROM: Jack Sullivan Jack
Specifications Engineer

SUBJECT: ~~NE Sandy Blvd.-SE Travel St.~~
Plan Quantities

At Hal's request, I am clarifying the reasons for the under-estimates in the plan quantities for this project.

Item #6 Cold Plane Pavement Removal

As stated in Hal's letter of July 16, 1979, an error was made by this office using a 14-foot-width rather than a 24-foot-width to compute the area.

Items 7, 10, 11, 12, 13, 14

The plan quantities for these items were based on no work in the intersections on 82nd Avenue. Information was not available in the field submittal to determine accurately this "no work" area. An estimate was made based on the quantity of excavation provided in the field submittal. Our estimate for the "no work" area proved to be high; consequently, plan quantities for the work area were low.

The revised contract quantities now reflect a more accurate estimate of this "no work" area as provided by Resident Engineer Hoffman.

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JS:ab
cc: E. L. Hardt
J. H. Versteeg ✓

VICTOR ATIYEH
GOVERNOR

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

In Reply Refer to File No.:

DATE: August 7, 1979

TO: Oregon Transportation Commission

AGENDA
AUG 21 1979
IA-3(a)

FROM: H. S. Coulter
State Highway Engineer

SUBJECT: Request for Increase in Project Authorization
S.W. 117th Ave.-S.W. Hocken & N.E. Sandy Blvd.-S.E. Flavel
Contract No. 8962

Tualatin Valley & Cascade Highways

This state paving project will overrun the project authorization. An additional $184,960.00 or 17.6 percent in authorization is needed to cover the estimated cost.

The plan quantities were in error as the wrong roadway width was used in estimating. The major increases in bid items will be in Cold Plane Pavement Removal ($72,600), General Excavation ($14,700), and in the paving items ($54,750). Engineering and contingencies have been extended in proportion to the added work.

It is recommended that the authorization for this project be increased by $184,960 to a new total of $1,237,422.80. This matter will be on the Consent Calendar for your August 21 meeting.

DCA:mk jh

bc: F. B. Klaboe
C. W. Head
C. T. Keasey
V. E. Skoog
L. W. Rulien
D. H. Moehring
E. L. Hardt
George Bell

NOTED
C. W. HEAD

Form 734-5122

FORM 81.734.3030

OREGON STATE HIGHWAY DIVISION

INTER-OFFICE CORRESPONDENCE

FILE: CON 5 #8962

Salem, Oregon

July 30, 1979

FROM: O. B. Jackmond
Contract Administration Engineer

TO: H. S. Coulter
State Highway Engineer

SUBJECT: Request for Increase in Project Authorization
S.W. 117th Ave.-S.W. Hocken &
N.E. Sandy Blvd.-S.E. Flavel
Contract No. 8962

This State paving project will overrun the project authorization by an estimated $184,960.00, or 17.6 percent. The project has just recently started with the completion anticipated for September of this year.

An error in the plan quantities resulted when a cold planing width of 14 feet was used for estimating instead of 24 feet which is the actual width. ~~It was also later decided to reconstruct the intersections~~. Both these items increased the plan quantities with the major increases being in Cold Plane Pavement Removal ($72,600), General Excavation ($14,700), and in the paving items ($54,750).

As this change is early in the project, the engineering and contingencies have been extended in proportion to the revised contract work.

P.C.R.B. approval is not required, as this work is an extension of the project bid items.

A rough draft letter to the Transportation Commission is attached along with a copy of the Expected Overrun of Project Authorization.

OBJ:DA:fr

Att.

cc: Ed Hardt
W. E. Hoffman
Robert Church

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STATE HWY ENGR
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1962

July 31, 1979

Fredrickson, Weisensee & Cox
Attorneys at Law
2000 Georgia Pacific Building
900 S.W. Fifth Avenue
Portland, OR 97204

Attention: Mr. Frank A. Vizzini

Gentlemen:

By letter of July 27, 1979, you indicated that your client, the owner of the Burger Country Restaurant at 707 N.E. 82nd Avenue, was experiencing difficulties. In particular, you indicated that the reconstruction work taking place on 82nd Avenue was making access difficult to the parking lot serving the Burger Country Restaurant.

It is impossible to undertake a street improvement of this magnitude without some disruptions to traffic and some inconvenience to users. On receipt of your letter I did check with our Region office in Milwaukie and found that the contractor had on Saturday, July 28, undertaken some work on the parking lot access to improve the situation. We are hopeful that the contractor will complete the next stage of his work at an early date.

Thank you for calling this matter to our attention.

Sincerely,

L. W. Rullen, Executive Assistant
to the State Highway Engineer

LWR:jh

bc: R. A. Hatch Company
E. L. Hardt
Jack Sollis
C. T. Keasey

FREDRICKSON, WEISENSEE & COX
ATTORNEYS AT LAW

FLOYD A. FREDRICKSON
LLOYD W. WEISENSEE
EUGENE D. COX
PETER C. McCORD
JOHN R. DUDREY
J. M. FOUNTAIN

FRANK A. VIZZINI

2000 GEORGIA PACIFIC BUILDING
900 S. W. FIFTH AVENUE
PORTLAND, OREGON 97204
503-223-7245

WENDELL GRAY
OF COUNSEL

July 27, 1979

RECEIVED
STATE HWY ENGR
JUL 30 '79
REFER TO
FOR
Info | Inves | R/D | D/R | Sign | Act | File

H. Scott Coulter
State Highway Engineer
Transportation Building
Salem, Oregon 97310

R. A. Hatch Co.
2944 S.E. Powell Blvd.
Portland, Oregon 97202

Re: Interference with access to business premises Burger Country Restaurant
707 N.E. 82nd Avenue
Our File No. 78531

Gentlemen:

This firm represents Creative Restaurant Careers, Inc., the owner of the Burger Country Restaurant at 707 N.E. 82nd Avenue.

A highway maintenance project now underway on 82nd Avenue is interfering with customer access to the restaurant and has caused a loss of $500 per day to our clients. The problem has been discussed with Bill Hoffman, the state highway division resident engineer, and with John Bilich, the project manager for R. A. Hatch. Both have represented to me that the problem would be remedied. Despite repeated remonstrances by the restaurant manager with the road crew at the job site, and despite my contacts with Messrs. Hoffman and Bilich, nothing has been done to remedy the situation for two full days.

The specific problem is that the road grade has been cut away from the driveway pans providing access to the restaurant to such an extent that automobiles have ceased to attempt to negotiate the passage from the roadway to the restaurant parking lot. Mr. Bilich promised on Thursday, July 26, to have a crew fill in the angle created with some asphalt chips, but nothing has been done as of the close of business today.

Unless this problem is remedied no later than 5 p.m., Monday, July 30, our client will file suit to recover its losses, as well as punitive damages for the willful failure of the highway division and the contractor to remedy the problem after notice. Whether or not the problem is remedied on Monday, our client reserves its right to assert a claim against the highway division and the contractor for the losses it has incurred and will incur until the problem is remedied.

Thank you for your prompt action on this matter.

Very truly yours,

Frank A. Vizzini

Frank A. Vizzini

FAV:kc

cc: Creative Restaurant Careers, Inc.

894

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JUL 27 1979
CONSTRUCTION BRANCH

Keasey — Richard
Jackman — Berg
Hopkins — Inloes
Williams — Wilmot
Johnson — Gebauer
Church

OREGON STATE HIGHWAY DIVISION
INTER-OFFICE CORRESPONDENCE
Region 1 - Milwaukie
July 25, 1979

FILE:

NOTED
H. S. COULTER

FROM: EDWARD L. HARDT
Region Engineer

SUBJECT: SW 117th Ave.-SW Hocken St.
and NE Sandy-SE Flavel St.
Plan Quantities

TO: C. T. KEASEY
Construction Engineer

Mr. Versteeg wrote to you under date of July 11 explaining the reasons why some of the quantities on the subject project were underestimated in the bidding documents. I have attached a copy of his letter for your convenience. Contrary to the information in this letter, this office has never planned on rebuilding the shoulders of 82nd Avenue through the cross street intersections.

This project was conceived by District Engineer Maury Payne and the quantities were worked up by Maury's assistant, Dave Willhite. The initial concept was to do intermittent shoulder rebuilding as required along the length of 82nd Avenue. As we developed the project it became apparent that we should do all of the shoulders between sidestreets. That's the way the project was turned in and when the contractor at the preconstruction conference brought to our attention the discrepancy in the quantities we verified these discrepancies, also based on the concept that we would not dig out the cross streets. That is still our intent and that is the way the job is being prosecuted today. There is no reason to excavate through the cross streets because there is a good base there because of the presence of the cross street. Also, digging this out would present an almost unsolvable traffic-handling problem. In selected locations we are cold planing across the cross streets where the condition of the surfacing warrants it. This will cost somewhere in the neighborhood of 5-10 thousand dollars and will be covered in the quantities that are now set up for the project.

I don't know where Hal got his information that the major part of the overrun in quantities was "...a result of changing the intersection removal based on a decision by the Region Engineer", but this is completely erroneous.

ELH/cr
Attachment
cc Hal Versteeg
Bill Hoffman w/attachment

8962

Form E-372 (Rev. 12-70)

OREGON STATE HIGHWAY DIVISION

Expected Overrun of Project Authorization

Project S.W. 117th. Ave.-S.W. Hocken St. & N.E. Sandy Blvd-S.E. Flav Date July 16, 1979

Highway Tualatin Valley and Cascade Contract No. 8962

County Washington & Multnomah Kind of Work Grade-Pave. Contractor R.A. Hatch Co.

	Authorized	Estimated
Contract Amount	$851,280.00	$1,000,330.00
Anticipated Items	76,000.00	102,050.00
Contingency (4½%)	41,727.60	45,014.85
Engineering	83,455.20	90,027.95
Credits		
PROJECT COST	$1,052,462.80	$1,237,422.80

NET INCREASE $ 184,960.00 OR 17.6 %

MAJOR OVERRUNS AND UNDERRUNS (Describe Briefly)

(Indicate whether contract (C), anticipated (A), or unanticipated (U). (List all unanticipated items)

Item No.	(C-A-U)		Expected Amount	Net Change
1	C	Mobilization	$ 62,000.00	+ 2,000.00
2	C	Temp. Protect. & Direct. of Traffic	35,000.00	+ 5,000.00
6	C	Cold Plane Pavement Removal	203,400.00	+72,600.00
7	C	General Excavation	108,500.00	+14,700.00
10	C	Emulsified Asphalt Treated Base Mixture	131,500.00	+18,000.00
11	C	Emulsified Asphalt in Mixture	95,000.00	+12,350.00
12	C	Class "C" Asphalt Concrete Mixture	184,800.00	+16,800.00
13	C	Asphalt Cement in Mixture	77,400.00	+ 7,200.00
14	C	Asphalt in Tack Coat	3,400.00	+ 400.00
EWO # 1	A	Cold Planer Teeth	14,550.00	+ 3,550.00
EWO # 2	A	Adjust Manholes, Inlets, & Valve Boxes	55,000.00	+50,000.00
SFO # 2	A	Inspection of Utilities Adjustments	2,500.00	-27,500.00

Principal reasons for overruns (Continue on reverse side): Incorrectly calculated Quantities for bid items.

INSTRUCTIONS: A report on this form is to be submitted if and when it becomes evident that the project cost will exceed the original project authorization by more than five per cent and again if and when it becomes evident that the project cost will exceed by more than five per cent a subsequently approved increased project authorization. Submit five copies to Salem. After having been noted by the Deputy or Assistant State Highway Engineer, one copy will be sent to the Regional Engineer and one copy to the Resident Engineer.

Submitted by W E Robertson
Resident Engineer

Noted by C. B. Jackmond
Construction or Bridge Engineer

Confirmed by J. Warren Craft
Regional Engineer

Noted by
Deputy or State Highway Engineer

SP*28727-736

OREGON STATE HIGHWAY DIVISION

FILE: CON 5 #3962

INTER-OFFICE CORRESPONDENCE

Salem, Oregon

July 30, 1979

FROM: O. B. Jackmond
Contract Administration Engineer

TO: H. S. Coulter
State Highway Engineer

SUBJECT: Request for Increase in Project Authorization
S.W. 117th Ave.-S.W. Hocken &
N.E. Sandy Blvd.-S.E. Flavel
Contract No. 3962

This State paving project will overrun the project authorization by an estimated $184,960.00, or 17.6 percent. The project has just recently started with the completion anticipated for September of this year.

An error in the plan quantities resulted when a cold planing width of 14 feet was used for estimating instead of 24 feet which is the actual width. It was also later decided to reconstruct the intersections. Both these items increased the plan quantities with the major increases being in Cold Plane Pavement Removal ($72,600), General Excavation ($14,700), and in the paving items ($54,750).

As this change is early in the project, the engineering and contingencies have been extended in proportion to the revised contract work.

P.C.R.B. approval is not required, as this work is an extension of the project bid items.

A rough draft letter to the Transportation Commission is attached along with a copy of the Expected Overrun of Project Authorization.

OBJ:DA:fr

Att.

cc: Ed Hardt
W. E. Hoffman
Robert Church

Z Kessey
Jackmond
Hopkins
Williams
Johnson
Glenn

RECEIVED
JUL 30 1979
CONSTRUCTION BRANCH

Richards
Berg
Inlow
Widmer
Gebauer
Church

8962

RECEIVED
JUL 27 1979
CONSTRUCTION BRANCH

Richards
Berg
Inloes
Widmer
Gebauer
Church

OREGON STATE HIGHWAY DIVISION
INTER-OFFICE CORRESPONDENCE

FILE:

Region 1 - Milwaukie
July 25, 1979

FROM: EDWARD L. HARDT
Region Engineer

SUBJECT: SW 117th Ave.-SW Hocken St.
and NE Sandy-SE Flavel St.
Plan Quantities

TO: C. T. KEASEY
Construction Engineer

Mr. Versteeg wrote to you under date of July 11 explaining the reasons why some of the quantities on the subject project were underestimated in the bidding documents. I have attached a copy of his letter for your convenience. Contrary to the information in this letter, this office has never planned on rebuilding the shoulders of 82nd Avenue through the cross street intersections.

This project was conceived by District Engineer Maury Payne and the quantities were worked up by Maury's assistant, Dave Wilhite. The initial concept was to do intermittent shoulder rebuilding as required along the length of 82nd Avenue. As we developed the project it became apparent that we should do all of the shoulders between sidestreets. That's the way the project was turned in and when the contractor at the preconstruction conference brought to our attention the discrepancy in the quantities we verified these discrepancies, also based on the concept that we would not dig out the cross streets. That is still our intent and that is the way the job is being prosecuted today. There is no reason to excavate through the cross streets because there is a good base there because of the presence of the cross street. Also, digging this out would present an almost unsolvable traffic-handling problem. In selected locations we are cold planing across the cross streets where the condition of the surfacing warrants it. This will cost somewhere in the neighborhood of 5-10 thousand dollars and will be covered in the quantities that are now set up for the project.

I don't know where Hal got his information that the major part of the overrun in quantities was "...a result of changing the intersection removal based on a decision by the Region Engineer", but this is completely erroneous.

ELH/cr
Attachment
cc Hal Versteeg
Bill Hoffman w/attachment

1-27-79
+C - HSC
+F - Lt.

1962

STATE OF OREGON

INTEROFFICE MEMO

Road Design Section — DEPT.

378-6558 — TELEPHONE

TO: C. T. Keasey
Construction Engineer

DATE: July 11, 1979

FROM: J. H. Versteeg
Road Design Engineer

SUBJECT: SW 117th-SW Hocken &
NE Sandy & SE Flavel

Plan Quantity

1 Keasey
2 Jackman
3 Hopkins
4 Williams
5 Johnsen
6 Glenn

RECEIVED
JUL 12 1979
CONSTRUCTION BRANCH

Richards
Berg
Inloes
Widmer
Gebauer
Church

We have reviewed the project quantities to determine why the bidding quantities differed from those developed by the Region to those of the contract plan.

Item		Bidding Plans	Contract Plans
#6	Cold Plane Pavement Removal	65,400 sq. yd.	101,700 sq. yd.

The quantity increased 36,300 sq. yds. and the increase in cost was $72,600.00. There was an error in the bidding quantity estimates. The cold planeing width used for estimating was 14 feet, the actual width of the cold planeing is 24 feet.

The early field data received in Design indicated that the intersections would not be graded out. Region I has now determined that the intersections should be reconstructed increasing contract quantities and costs ~~by~~ to the following amounts.

Item		Contract Plans	Contract Costs
#7	General Excavation	15,500 cu. yd.	$108,500.00
#8	Cement Treated Existing Materials	7,600 sq. yd.	19,000.00
#9	Cement for Treated Existing Materials	290 ton	26,000.00
#10	Emulsified Asphalt Treated Base Mix	13,150 cu. yd.	131,500.00
#11	Emulsified Asphalt in Mixture	1,000 ton	95,000.00
#12	Class C Asphalt Concrete Mixture	13,200 ton	184,800.00

7/13/79 Need request Const. Dept. H

REFERRED TO
Geo. Hopkins — Need P.A for
Asst. State Hwy. Engr.
(Constr. & Matls.)
... quantities and Reg. for
... approval. ... authorization.
GK

Item		Contract Plans	Contract Costs
#13	Asphalt Cement in Mixture	860 ton	$ 77,400.00
#14	Asphalt in Tack Coat	17 ton	3,400.00
		TOTAL	$993,330.00

In summary, the total amount of the contract work is increased by $142,050.00 from $851,280.00 to $993,330.00. Of this amount, $72,600.00 was from an error in computing the cold planeing quantities and $69,450.00 increase was a result of changing the intersection removal based on an decision by the Region Engineer.

JHV:ab

RECEIVED
STATE HWY ENGR
JUL 16 79
REFER TO
FOR
Info | Invest | R/D | D/R | Sign | Act | File

. 1979 Pac. Hwy. E. & 8964
. Berg Parkway in Canby
. (Traffic signal)

CA5786
7-20-78

1964

Files L.

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

6-5-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Hertz Electric, Inc. No. 8901	E.Idaho Ave.@ E.Lane (Ontario)	May 12, 1980
Hertz Electric, Inc. No. 8964	Pac. Hwy. E. @ Berg Parkway (Canby)	May 12, 1980
Paul Bros., Inc. No. 8759	Garden Valley Blvd.-Fairgrounds Intchge.	May 16, 1980
Hansen Electric Co. No. 8938	Broadway St. @ 16th St.(North Bend)	May 16, 1980
Hamilton Const. Co. No. 8928	Judkins Point O'Xing.	May 20, 1980
Southern Oregon Rock Co. No. 9078	Port Orford Rock Production	May 27, 1980
Babler Bros., Inc. No. 8934	Crooked River Hwy.-Frederick Butte Rd.	May 27, 1980
Columbia West Matls. & Constructors, Inc. No. 8909	E. Fremont Bridge Connection	May 28, 1980
Hamilton Construction Co. No. 8943	N. Umpqua R. (Winchester) Bridge, N. Bound	May 28, 1980
Columbia Pacific Construction Co. No. 8898	Coast Fk. Willamette R. (Harrison Ave.) Bridge	May 30, 1980
Tice Electric Co. No. 8835	Powell Blvd. @ 162nd & Sandy Blvd. @ 122nd and 162nd	May 30, 1980
J. B. Steel, Inc. No. 8854	Port of Entry (Klamath Falls)	June 3, 1980

June 5, 1980

C. T. Keasey
Asst. State Highway Engineer

8464

May 13, 1960

Fireman's Fund Insurance Company
181 S. W. Salmon, Suite 909
Portland, OR 97204

CONT'S
8464

Attention: Fidelity & Surety Department

Gentlemen:

On May 13, 1960, we wrote to you concerning release of final payment on Contract No. 8464 awarded to Harte Electric, Inc., for traffic signals on the Pacific Highway East at Berg Parkway in Sandy, Clackamas County.

Final payment on this contract is $1,750.00 and the total contract amount is $38,408.40. No work was performed under force account.

Sincerely,

Robert W. Hayes
Contracts Engineer

FKN/gnk

cc: Harte Electric, Inc.
P. O. Box [illegible]
Albany, OR 97321

Homer H. Smith Insurance Agency
[illegible] Commercial Street S. E.
Salem, OR 97302

bc: C. T. Keasey
Walt Hart
C. O. Fredrickson

8964

FORM 81-734-2001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: PACIFIC HWY. EAST @ BERG PARKWAY (CANBY)	WEEK ENDING: 3/8/80	
	SECTION PREFIX: 3-8259	
HIGHWAY: PACIFIC EAST	COUNTY: CLACKAMAS	
NAME OF JOB: PACIFIC HWY. EAST @ BERG PARKWAY (CANBY)	KIND OF WORK: TRAFFIC SIGNAL INSTALLATION	
CONTRACTOR: HERTZ ELECTRIC, INC.	CONTRACT NUMBER: 8964	FEDERAL AID PROJECT NUMBER: STATE
DATE OF CONTRACT: 7/20/79	DATE WORK STARTED: 9/12/79	ESTIMATED COMPLETION DATE: 2/16/80
AVERAGE FORCE ON PROJECT FOR THE WEEK — MEN: 0 SUPERVISION:	SPECIFIED WORK DAYS:	WORK DAYS USED:
	SPECIFIED CALENDAR DAYS: 200	CALENDAR DAYS USED: 196
	SPECIFIED COMPLETION DATE:	PERCENT OF TIME ELAPSED: 98
PROJECT AUTHORIZATION: $ 46,161.82	ENGINEERING AUTHORIZATION: $ 4,031.60	PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100
EXCLUSIVE OF ENGINEERING: $ 42,130.22		
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 42,130.22	ENGINEERING COST TO DATE: $ 3,800.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 98
ESTIMATED PERCENT: OVERRUN / UNDERRUN: ____ %	PERCENT OF AUTHORIZATION: 94 %	DATE PROJECT WAS COMPLETED: 2/12/80

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
N/A							

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY				PROJECT COMPLETE
MONDAY				
TUESDAY				
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

RECEIVED
MAR 11 1980
CONSTRUCTION BRANCH

Keasey — Richards
Jackmond — Berg
Hopkins — Inloes
Williams — Widmer
Johnsen — Gebauer
Glen — Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK	
SUNDAY	
MONDAY	
TUESDAY	
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

PROJECT COMPLETE

FINISHING SEMI-FINAL PAPERWORK

LAST REPORT

SIGNED _____ LOCATION _____

WARREN E. MUELLER, RES. ENGINEER, SALEM

PRIME RESIDENT SUBMIT 2 COPIES WHEN BRIDGES AND GRADING BOTH ARE INVOLVED SUBMIT 3 COPIES

SP-7.216

8964

7-19-79

Date Oct. 19, 1979 PROJECT MANAGEMENT OFFICE MEMO

Subject Pac Hwy E & Berg Parkway
Tole #1, Owner 28 letting File No. _____

Received (call) (visit) from Mac Haven E & E Development Co.

Address 338 NW 5th Ave, Portland 97209

Made (call) (visit) to _____ Phone _____

Reason for contact and general discussion: He stated that they were going with the Letter of Credit route for their D.D. on this project. Today He will take necessary information to Mr. Dan Heinbrick @ Oregon Bank main office for his processing. Said he wanted invoices on project to be sent to Mr. Zinck at the above address. Felt we should have "Letter of credit next week. If we have any question can call Mr. Heinbrick @ Oregon Bank

Signature Stephen H Macnab

Ok to File

File ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )
Circulate: PME LGE OPE FAE CCE OM Other

8264

Original in safe in Commission Services

Department of Transportation
HIGHWAY DIVISION
TRANSPORTATION BUILDING, SALEM, OREGON 97310

JUL 12 1979

In Reply Refer to File No.:

July 10, 1979

H. M. Gaunt
Mercury Development Inc.
338 N.W. 5th Avenue
P.O. Box 5487
Portland, Oregon 97228

Signal Project
Pacific Hwy E. @ Berg Parkway
Canby, Oregon

Dear Mr. Gaunt:

Our agreement with the City of Canby and E and Z Development Co. Inc. provided, among other things, that the corporation, after opening of bids and prior to award of the contract, shall deposit its check with State for 100% of the total estimated project costs. In the case of the Berg Parkway Signals the estimated costs to the corporation would be $46,150.00.

In answer to your letter of June 11, 1979 and subsequent telephone calls between you and Robert H. Prange, we feel that the method of the corporation's payment can be handled by a Letter of Credit. An irrevocable Letter of Credit in the amount of $46,150.00 should be deposited with the State Highway Division. This Letter of Credit, issued by a local bank, would be deposited as security for the payment of the estimated total cost for construction of the contract. The state would then draw on the Letter of Credit for the payment of contractor work completed, construction engineering or other costs incurred by State during the construction period. The State would present vouchers for such payments on a monthly basis.

Upon completion of the project the State will submit an itemized statement of the actual total cost. If the actual total cost exceeds the amount of the Letter of Credit, the corporation will pay the difference; however, any portion of the Letter of Credit in excess of the actual cost shall be promptly released by the State.

If you approve these procedures will you please have one of your corporate officers approve both copies of this letter, return one to Project Management, State Highway Division, and retain the other for your records.

H. M. Gaunt
Mercury Development Inc.

Signal Project
Pac Hwy E @ Berg Pkwy
Canby, Oregon

As stated in our letter to Mr. Louis Zimel, E and Z Development Co., Inc. we would expect to have the Letter of Credit on or before July 20, 1979. If you expect any delays please advise.

Very truly yours,

D. H. Moehring
Asst. State Highway Engineer

E and Z Development Co. Inc.

By Louis Zimel

Title Pres.

Date 7/20/79

RHP:fkc
Attachment

IRREVOCABLE
NEGOTIATION
DOCUMENTARY
CREDIT

STANDBY

the oregon bank
MEMBER FDIC

P.O. BOX 3066
PORTLAND, OREGON 97208, U.S.A.

CABLE ADDRESS
PORTBANK
TELEX NO. 360333

ALL CORRESPONDENT BANK CHARGES ARE FOR ACCOUNT OF BENEFICIARY

ORIGINAL

THIS IS A CONFIRMATION OF THE CREDIT OPENED BY TELEX ☐ UNDER TODAY'S DATE.	DATE OF ISSUE: July 20, 1979	CREDIT NUMBER OF ISSUING BANK: 5443	CREDIT NUMBER OF ADVISING BANK:

ADVISING BANK

APPLICANT
Mercury Development Inc.
338 N.W. 5th Avenue
P.O. Box 5487
Portland, Oregon 97228

BENEFICIARY
State of Oregon
Department of Transportation
Highway Division
Transportation Building
Salem, Oregon 97310

AMOUNT
U.S. $46,150.00
Forty-Six Thousand One Hundred Fifty and no/100 U.S. Dollars

EXPIRY
DATE November 19, 1979 At Our Office

WE HEREBY ISSUE IN YOUR FAVOR THIS DOCUMENTARY CREDIT WHICH IS AVAILABLE BY NEGOTIATION OF YOUR DRAFT(S) DRAWN ON US AT ---sight--- FOR 100% INVOICE VALUE BEARING THE CLAUSE: "DRAWN UNDER DOCUMENTARY CREDIT NO. 5443 ISSUED BY THE OREGON BANK, PORTLAND, OREGON." ACCOMPANIED BY THE FOLLOWING DOCUMENTS:

1. Beneficiary's signed statement certifying that the amount drawn represents payment of contractor work completed, construction engineering and/or other cost incurred relative to the installation of a traffic signal on Pacific Hwy. E. at Berg Parkway, Canby, Oregon.

SHIPMENT FROM / TO	PARTIAL SHIPMENTS	TRANSHIPMENTS
N/A	N/A	N/A

SPECIAL CONDITIONS

Partial drawings are permitted.

WE HEREBY ENGAGE WITH DRAWERS AND/OR BONA FIDE HOLDERS THAT DRAFTS DRAWN AND NEGOTIATED IN CONFORMITY WITH THE TERMS OF THIS CREDIT WILL BE DULY HONORED ON PRESENTATION AND THAT DRAFTS ACCEPTED WITHIN THE TERMS OF THIS CREDIT WILL BE DULY HONORED AT MATURITY.
THE AMOUNT OF EACH DRAFT MUST BE ENDORSED ON THE REVERSE OF THIS CREDIT BY THE NEGOTIATING BANK.

YOURS FAITHFULLY,
THE OREGON BANK

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

THE ADVISING BANK IS REQUESTED TO NOTIFY THE BENEFICIARY WITHOUT ADDING THEIR CONFIRMATION.

ADVISING BANK'S NOTIFICATION

PLACE, DATE, NAME AND SIGNATURE OF ADVISING BANK

EXCEPT AS FAR AS OTHERWISE EXPRESSLY STATED, THIS DOCUMENTARY CREDIT IS SUBJECT TO THE "UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS" (1974 REVISION) INTERNATIONAL CHAMBER OF COMMERCE (PUBLICATION 290).

FORM NO. INTL 95-0/78

8764

1-6-79

TO Bob D

DATE 7-6 TIME 3:35

WHILE YOU WERE OUT

Mr Gaunt CALLED

OF Mesa Develop Co.

PHONE B 223-2108

TELEPHONED		IN PERSON TO SEE YOU	
PLEASE CALL		WANTS TO SEE YOU	
WILL CALL AGAIN		RETURNED YOUR CALL	

MESSAGE Please set
call
Mon 7/9

Called Gaunt and told him Letter of Credit ok. GAH 7/6

TAKEN BY 7

FORM 85-120-1010

Time Payments

PAC. Hwy. E. @ BERG PARKWAY (CANBY)

MERCURY DEVELOPMENT INC.
H.M. GAUNT

WOULD LIKE TO MAKE PROGRESSIVE TIME PAYMENTS.

HOW ABOUT LETTER OF CREDIT.

200 CALENDER DAYS $46,150

Bid 42,302.00
Auth 50,382.29

8904

June 29, 1979

E and Z Development Co., Inc.
338 N.W. 5th Avenue
Portland, Oregon 97209

Attn: Louis Zimal
President

City of Canby
City Hall
Canby, Oregon 97013

Attn: Harold A. Wyman
City Recorder

Gentlemen:

On June 28, 1979 a satisfactory bid was received from Hartz Electric, Inc., P.O. Box 577, Albany, Oregon 97321 for installing a traffic signal on Pacific Hwy. E. @ Berg Parkway. The advance deposit based on the anticipated construction cost of their bid is as follows:

Bid Items	$38,615.00
Permanent Pavement Striping	$ 320.00
Signal Controller Testing	350.00
4 1/2% Contingencies	1,814.22
Construction Engineering	4,001.60
ESTIMATED FIELD COST	$ 2,000.00
Preliminary Engineering Paid by Company 5/25/78	- 2,000.00
ESTIMATED TOTAL COST	$46,151.82

Company's Advance Deposit: say $46,150.00

After the opening of the bids and prior to award of the contract, Corporation shall deposit its check with State for 100 percent of the total estimated project costs.

This project will be awarded upon receipt of your advance deposit, which should be in this office no later than July 20, 1979.

Please make your check for $46,150.00, payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

D. E. Stone
Operation Programming Engineer

PH:pf

bcc w/AD # 648: Phil Stearns, Federal Aid Specialist
Vern Skoog - Please return completed AD # 648 when check is received.

ROSEMAN LANDFILL, RD MAGNT	CONT NO		FA PROJ NOS						
	003	8231	199	00				7.32	
			** JOB TOTALS **			**		7.32	**
[redacted] DEV CO. DESIGN & SIG CANBY	CONT NO		FA PROJ NOS						
	003	8232	594	00				2,000.00CR	

TOTAL TO DATE JOB COST SUMMARY

MAY 1979 PAGE 1339

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION	GP	CURRENT MONTH		FISCAL YEAR TO DATE		GRAND TOTAL TO DATE
	003	8232	901	00			1,347.66		1,347
	003	8232	905	00	43.66		104.36		104
	003	8232	911	00	94.76		2,053.16		2,053
	003	8232	914	00	4.80		4.80		4
	003	8232	921	00	171.20		171.20		171
	003	8232	922	00	3.57		3.57		3
			** JOB TOTALS **		322.61	**	[redacted]	**	[redacted]
ESTACADA	CONT NO		FA PROJ NOS						
	003	8233	199	00					240
	003	8233	594	00			240.00CR		240
			** JOB TOTALS **			**	240.00CR	**	
WEBSTER & THIESSEN	CONT NO		FA PROJ NOS						
	003	8234	199	00			129.07		129
	003	8234	594	00			129.07CR		129
			** JOB TOTALS **			**		**	
GLADSTONE-CLACK RIVER	CONT NO		FA PROJ NOS						
	003	8235	900	00			17.56		17

POSSMAN LANDFILL RD MAGNT	CONT NO		FA PROJ NOS						7.32		
	003	8231	199	00					7.32	**	
			** JOB TOTALS **				**				
EZ DEV CO DESIGN T SIG CANBY	CONT NO		FA PROJ NOS								
	003	8232	594	00					2,000.00CR		2,000

TOTAL TO DATE JOB COST SUMMARY — MAY 1979 — PAGE 1339

DESCRIPTION OF JOB OR DEPARTMENT	PREFIX		FUNCTION		GP	CURRENT MONTH		FISCAL YEAR TO DATE		GRAND TOTAL TO DATE
	003	8232	901	00				1,347.66		1,347
	003	8232	905	00		43.68		104.36		104
	003	8232	911	00		94.76		2,053.16		2,057
	003	8232	914	00		4.80		4.80		4
	003	8232	921	00		171.20		171.20		171
	003	8232	922	00		3.57		3.57		3
			** JOB TOTALS **			322.61	**	[illegible]		[illegible]
ESTACADA	CONT NO		& FA PROJ NOS							
	003	8233	199	00						240
	003	8233	594	00				240.00CR		240
			** JOB TOTALS **				**	240.00CR**		
WEBSTER & THIESSEN	CONT NO		& FA PROJ NOS							
	003	8234	199	00				129.07		129
	003	8234	594	00				129.07CR		129
			** JOB TOTALS **				**		**	
GLADSTONE-CLACK RIVER	CONT NO		FA PROJ NOS							
	003	8235	900	00				22.56		22

8964

P

MERCURY DEVELOPMENT, Inc.

Development • Management
338 N. W. 5th Avenue
Phone (503) 223-2108 • P. O. Box 5487 • Portland, Oregon 97228

June 11, 1979

Mr. Gerald Wimer
Department of Transportation
205 Transportation Building
Salem, Oregon 97310

Re: Signal Project
Pacific Highway East at Berg Avenue Park Way
Canby, Oregon

Dear Mr. Wimer:

We have in our file a copy of your letter of May 1, 1979 directed to Mr. H. A. Wyman, City of Canby requesting approval of the preliminary plans for the signal light at Pacific Highway and Berg Park Way.

Considering it is our obligation to pay the contract at 100% participation on the signal light, there are a few questions that come to mind:

1. If the bid proposals are subject to opening of bids on June 28, 1979, will we be notified of the exact price?

2. The contract between the State of Oregon Highway Department and E & Z Development Co. stipulated the full sum of the light is due and payable at the time the contract is let. Our question is, how much advance notice will be given for us to arrange for the funds?

3. Is it normal in a situation of this type to make progressive payments to the successful contractor? If so, what would be the payment schedule"

We have committed ourselves to the payment for the installation of this light and understand the full extent of our obligation. We wish to emphasize that we wish to cooperate with the Department of Transportation in facilitating this project. We acknowledge that this light will be beneficial to our Canby Square Shopping Center as well as the City of Canby. The only point about which we are concerned is the length of time our funds would be tied up and the accumulated interest time which we will be paying on the funds outstanding with our financing.

We would appreciate a response from your office as soon as possible outlining the procedures required of E & Z Development Co. so that we can arrange our efforts to cooperate with the Department of Transportation within the time frame of its requirements.

Very truly yours,

H. M. Gaunt
Agent for the owners

HMG:pd copy to: H. A. Wyman and Kerry Dayton

Called H.H. Gaunt and gave him final Estimate his concern was, can they make time payments rather than one lump sum. Their of course would have to go to the bank and would like to save int. cost.

Member, International Council of Shopping Centers

REALTOR®

89-4

INDEX OF SHEETS	
SHEET NO.	DESCRIPTION
1	Sketch Map & Summary

5-21-79

INFORMATIONAL COPY
Not to be Used in Biddin

STATE OF O

DEPARTMENT OF TR

STATE HIGHWA

PLANS FOR PROPOS

TRAFFIC SIGNAL

PACIFIC HWY. EAST AT BERG

PACIFIC HIGHW

CLACKAMAS C

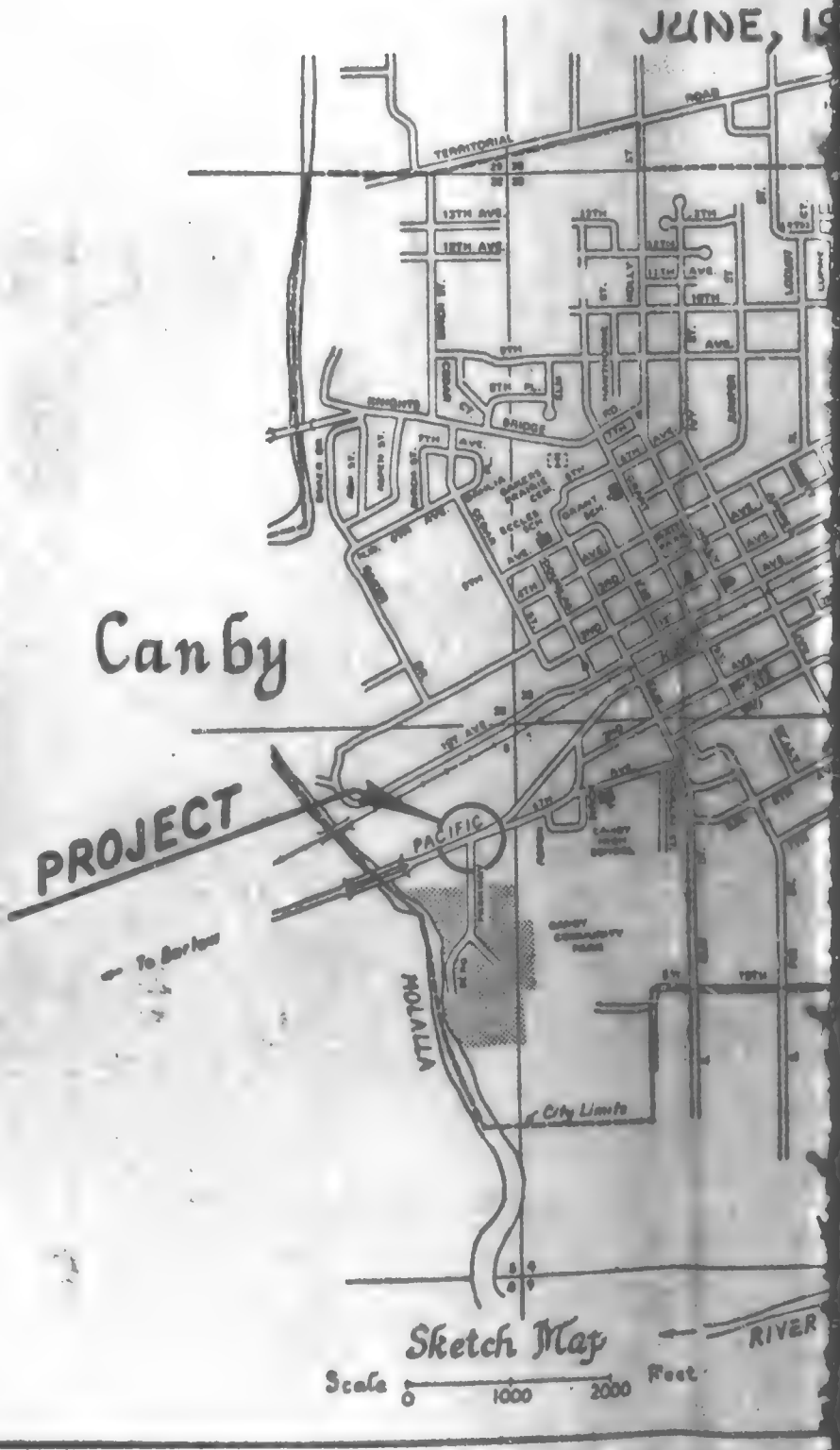
JUNE, 19

Drg. No's.
4528 - 4530 Incl.,
1470 - 1473 Incl.,
1488, 1489, 31006 } Traffic Signals

S-1, S-12, 2200 — Temporary Protection & Direction Of Traffic

S U M M A R Y

ITEM	UNIT	QUANTITY
Temporary Protection And Direction Of Traffic	All	All
Temporary Signs	Sq. Ft.	167
Flagmen	Hour	40
Traffic Signal Installation, Complete	All	All



E OF OREGON

OF TRANSPORTATION

IGHWAY DIVISION

FOR PROPOSED PROJECT

SIGNAL INSTALLATION

BERG PARKWAY (CANBY) SEC.

C HIGHWAY EAST

ACKAMAS COUNTY

JUNE, 1979

PACIFIC HWY. EAST AT BERG PARKWAY (CANBY) SEC. PACIFIC HIGHWAY EAST CLACKAMAS COUNTY				SHEET No. 1
FED. ROAD D. No.	STATE	PROJECT NUMBER	FISCAL YEAR	TOTAL SHEETS
10	OREGON	STATE		See Index

INFORMATIONAL COPY
Not to be Used in Bidding

OREGON TRANSPORTATION COMMI

Anthony Yturri	CHAIRMAN
Michael P. Hollern	VICE CHA
Gordon Coleman	COMMISSIO
Peter J. Brix	COMMISSI
Tom Walsh	COMMISSI
Fred B Klaboe	DIRECTOR

...PT. OF TRANSPORTATION | Date:

	General Files	Public Affairs
	General Services (DOT)	Public Transit
	Information Systems (Lane Ave.)	Radio
	Labor Relations	Right of Way
	Landscape	Safety & Health Services
	Library	Sign Shop
	Location	State Highway Engineer
Chief Counsel	Mail Room	Structures
Commission Services	Maintenance	Technical Services Engineer
Construction	Materials & Research	Traffic Support Services
Data Processing (Trans. Bldg.)	Motor Vehicles	Transportation Policy & Program Development
Employee Development	Organization & Manpower Services	Travel Information
Engineering (Design)	Parks & Recreation	Utilities
Environmental	Permits & Weightmaster	Materials
Equipment Shops & Storeroom	Personnel Operations	Rail...
Finance (DOT)	Directory	
FHWA	Proj. Mgmt. & Operations Planning	

ATTENTION: Wimer

FROM: Croft - N

COMMENTS: It is my understandi... that you are going to handle ... this project. Is that correct?

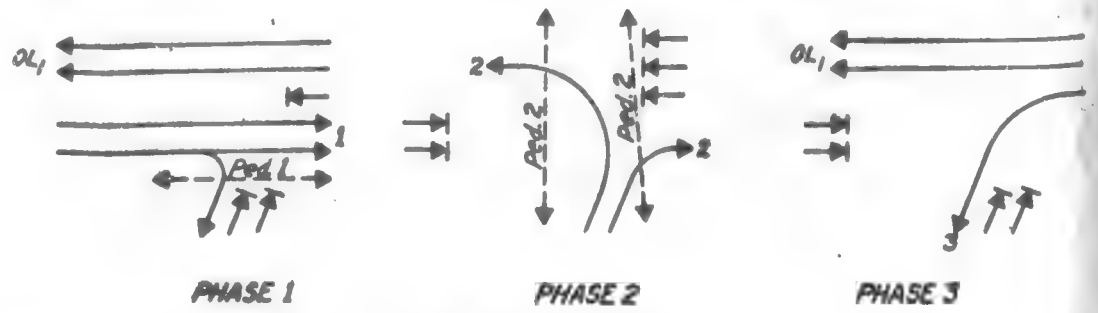
Form 731-0022 (7/78)

Marion — 5-21-79

You are correct. Region 2 will handle this project and any others on the State Highway system maintained by Region 2. Region 1 handles side street projects in Canby.

Jerry W

cc Ted Sitelfield

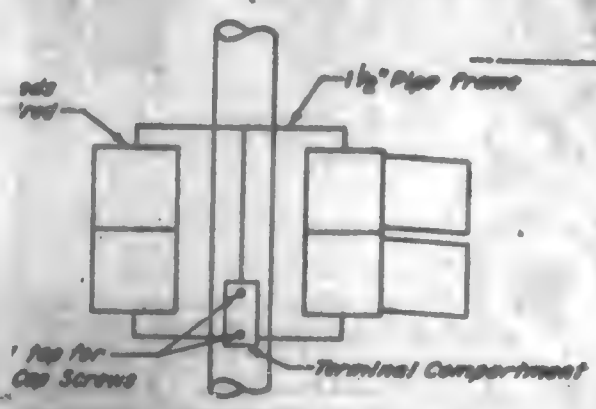


PHASE 1 PHASE 2 PHASE 3

NORMAL SEQUENCE OF OPERATION
OL1 = Phase 1 + Phase 3

Pole No. 2
L 547+50 (26' Rt.)

Pole No. 1
L 547+70 (41' Lt.)



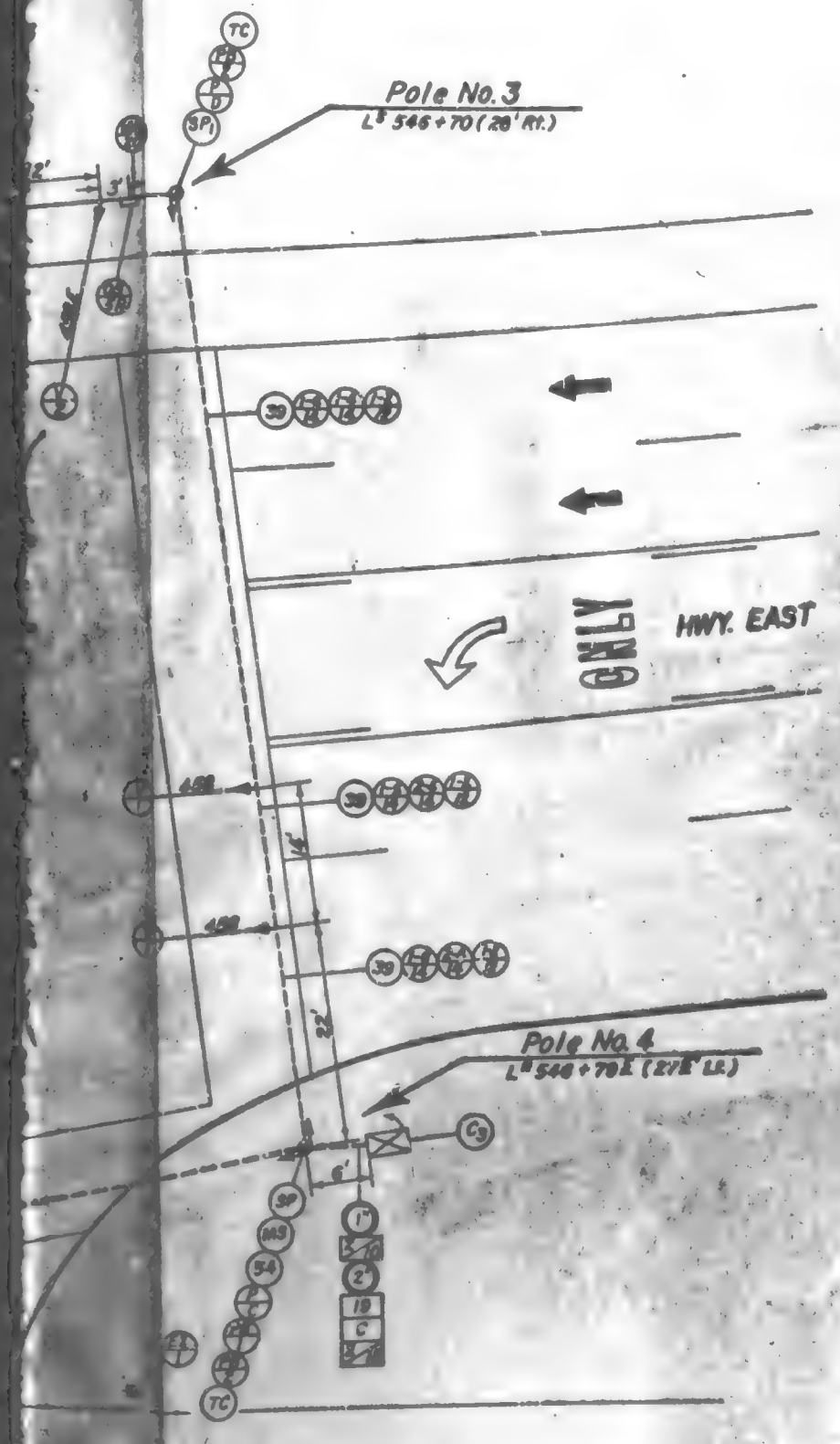
MODIFIED PEDESTRIAN SIGNAL
SIDE POLE MOUNTING

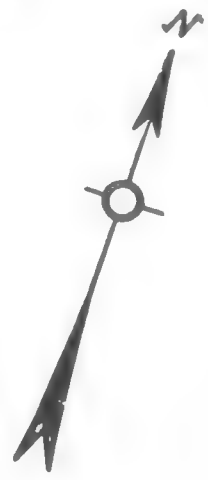
ONLY
ONLY
BERG PARKWAY

POLE NO.	FOUNDATION DEPTH (D)
1	6'-6"
2	6'-6"
3	6'-6"
4	6'-6"

SIGNAL PLAN
PACIFIC HWY. EAST AT BERG PARKWAY

SCALE 0 10 20 FEET 40





LEGEND

- Existing power pole (power source)
- (S) Install (S) inch electrical conduit
- (N#) Install (N) No. 14 type THWN wire
- (N#/S) Install (N) No. (S) type TW wire
- (C) Install one No. 8 type THWN wire (signal system common)
- (39) Install 3/8" galvanized messenger cable
- (N#/S) Install (N)-(S) wire No. (S) control cable
- (54) Install service cabinet M/35 amp breaker
- (MS) Install 120 v meter service
- (C3) Install 3 phase fully actuated controller in type "M" cabinet
- (SP) Install 30', 11°S.D. (Rem.) 3 ga. steel strain pole
- (SPh) Install 30', 11°S.D. (Rem.) 3 ga. steel strain pole w/mast arm bracket
- (M#) Install 30' mast arm (arm attachment height 21' from pole base)
- (TC) Install terminal cabinet
- (Ph) Install (Ph) phase vehicle signal
- (T) Install (T) type modified pedestrian signal
- (Ph) Install (Ph) phase pedestrian pushbutton w/instruction sign
- Install interior illuminated "LEFT TURN SIGNAL" sign
- (Ph) Install (Ph) phase programmed signal head

40E = 12"R, 12"Y, 12"G — 40B = 12"R, 12"Y, 12"G.LTH

N = Number of conductors — S = Size shown

T = Type shown — # = Arm size shown

Ph = Phase shown

- (AS) Install 4" galv. steel tether cable
- Install interior illuminated left turn ONLY arrow sign.
- Install interior illuminated right turn ONLY arrow sign.

A = Standard pluralizer mounting

E = Elevator pluralizer mounting

POLE FOUNDATION DATA		
POLE NO.	FOUNDATION DEPTH	VERTICAL REINFORCEMENT
1	6'-6"	8 No. 6 bars, grade 40 or 60
2	6'-6"	8 No. 6 bars, grade 40 or 60
3	6'-6"	8 No. 6 bars, grade 40 or 60
4	6'-6"	8 No. 6 bars, grade 40 or 60

APPROVED:

TRAFFIC ENGINEER

9/28/79

DATE

OREGON STATE HIGHWAY DIVISION

TRAFFIC SIGNAL INSTALLATION
PACIFIC HWY. EAST AT BERG PARKWAY (CANBY) SEC.
PACIFIC HIGHWAY EAST
CLACKAMAS COUNTY

March, 1979

ACCOMPANIED BY DWGS. 1470, 1471, 1472, 1473, 1488, 1489, 31006, 4529 & 4530.

TE DWG. NO. 4528

(2) FILE

SIGNAL PLAN
PACIFIC HWY. EAST AT BERG PARKWAY

SCALE 0 10 20 40 FEET

PRELIMINARY COPY

SUBJECT TO CHANGE

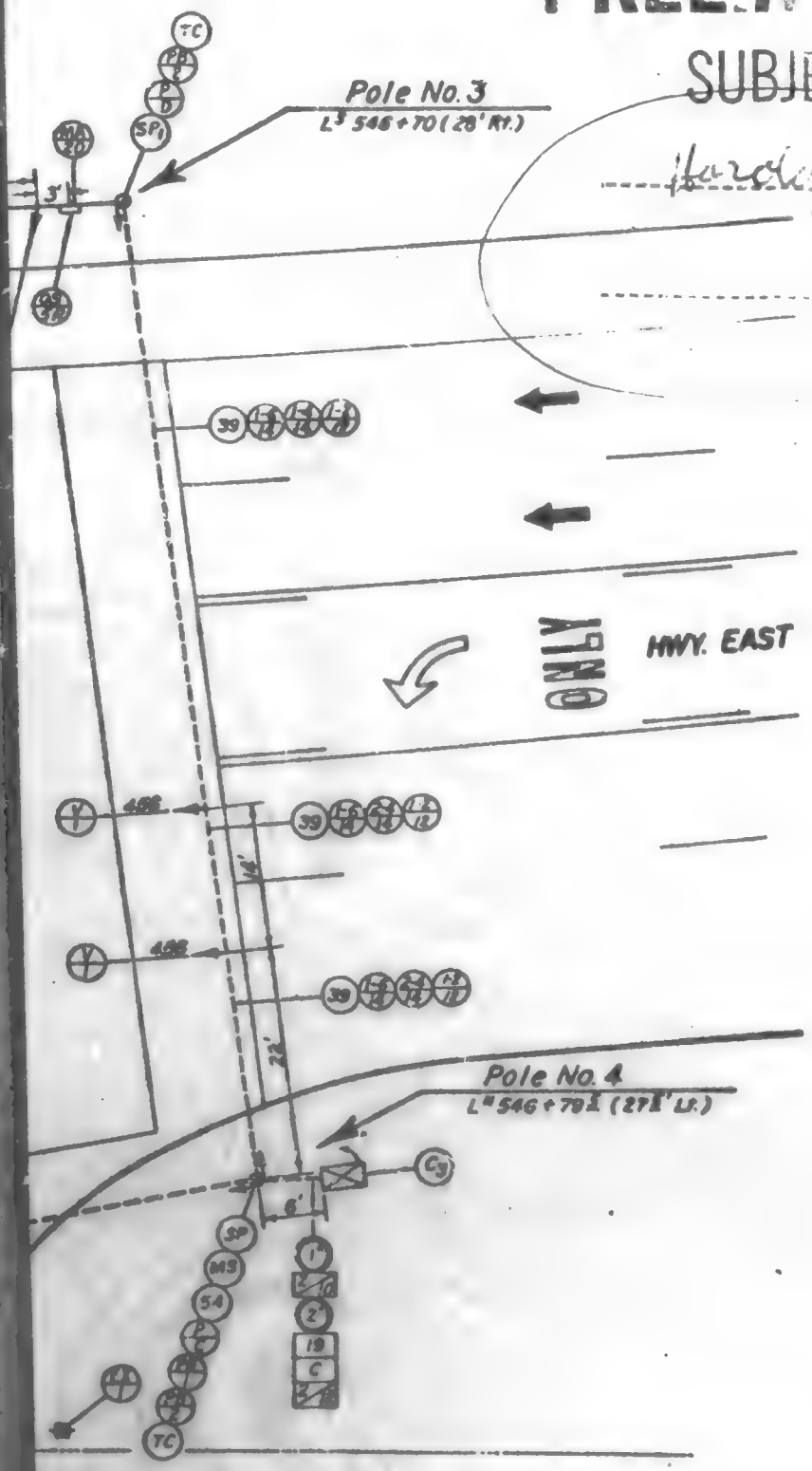
APR 30 1979

Harold A. Wyman

CITY APPROVAL

5/1/79

DATE



LEGEND

- Existing power pole (power source)
- (S) Install (S) inch electrical conduit
- (N) Install (N) No. 14 type THWN wire
- Install (N) No. (S) type TW wire
- C Install one No. 8 type THWN wire (signal system common)
- 39 Install 3/8" galvanized messenger cable
- Install (X)-(N) wire No. (6) control cable
- S4 Install service cabinet W/35 amp breaker
- MS Install 120 v meter service
- Cs ...tall 3 phase fully actuated controller in type "M" cabinet
- SP Install 30', 11°0.D. (Nom.) 3 ga. steel strain pole
- SP1 Install 30', 11°0.D. (Nom.) 3 ga. steel strain pole w/mast arm bracket
- MA Install 20' mast arm (arm attachment height 21' from pole base)
- TC Install terminal cabinet
- Install (Ph) phase vehicle signal
- Install (T) type modified pedestrian signal
- Install (Ph) phase pedestrian pushbutton w/instruction sign
- Install interior illuminated "LEFT TURN SIGNAL" sign
- Install (Ph) phase programmed signal head

458 = 12"R, 12"Y, 12"G
N = Number of conductors
T = Type shown
Ph = Phase shown

458 = 12"R, 12"Y, 12"GLTA
S = Size shown
G = AWG size shown

- Install interior illuminated left turn ONLY arrow sign
- Install interior illuminated right turn ONLY arrow sign

NOTED
W. R. ZIRBES

POLE FOUNDATION DATA		
POLE NO.	FOUNDATION DEPTH	VERTICAL REINFORCEMENT
1	6'-6"	8 No.6 bars, grade 40 or 60
2	6'-6"	8 No.6 bars, grade 40 or 60
3	7'-0"	8 No.6 bars, grade 40 or 60
4	6'-6"	8 No.6 bars, grade 40 or 60

4-27-79

TRAFFIC SIGNAL INSTALLATION
PACIFIC HWY. EAST AT BERG PARKWAY (CANBY) SEC.
PACIFIC HIGHWAY EAST
CLACKAMAS COUNTY

March, 1979

ACCOMPANIED BY DWGS. L470, L471, L472, L473, L488, L489, 31096, 4529 & 4530

DWG. NO. 4528

8969

May 1, 1979

City of Canby
City Hall
Canby, Oregon 97013

E and Z Development Co., Inc.
336 N.W. 5th Avenue
Portland, Oregon 97209

Attn: Harold A. Wyman
City Recorder

SUBJECT: Signal Project
Pacific Highway East at Berg Parkway
in Clackamas County

Gentlemen:

Attached herein is a set of proposed plans, for the signals on the subject project, for your review. Also a copy of the latest estimate.

Opening of Bid Proposals on this project are planned for June 28, 1979. Please review the plans and if you have any comments, corrections or changes, please notify this office by mail no later than May 18, 1979.

Your acknowledgement and approval of the estimate is desired at this time. You will note that the amounts do not include preliminary engineering, the estimated amount having been paid earlier.

If you have any questions, please feel free to call or write:

Gerald Winer
205 Transportation Building
Salem, Oregon 97310
Phone: 378-6514

Very truly yours,

Gerald Winer

Gerald Winer
Local Government Engineer

VWH:pf
Attachment
bcc: Jon Rose, Federal Aid Coordinator

N Bp

8964

July 20, 1978

City of Canby
City Hall
Canby, OR 97013

Attention: Harold A. Wynne
City Recorder

MISC. CONTRACTS and
AGREEMENTS No. 5786

E and Z Development Co., Inc.
338 N. W. 5th Avenue
Portland, OR 97209

Gentlemen:

Attached for your records is a fully executed copy of an agreement with the City of Canby, E and Z Development Company, Inc., and the Highway Division for installation of traffic signal equipment on the Pacific Highway East of Hwy Parkway in Clackamas County.

We have retained a fully executed copy of this agreement for the Transportation Commission's files.

Very truly yours,

C. W. Macy
COMMISSION SERVICES

ehm

Att.

cc Don Harnall (conf. agree. att.)

1 8904

STATE OF OREGON

INTER-OFFICE MEMO

Traffic - DOT — DEPT.

378-6537 — TELEPHONE

TO: V. E. Skoog, Controller
Highway Accounting

DATE: May 25, 1978

FROM: L. E. George
Traffic Engineer Supervisor

SUBJECT: Traffic Signal Installation
Pacific Highway East at Berg Ave. (Canby)
Clackamas County
Prefix 3-8232-199

Herewith, three copies of an Order to Render Service covering design of the subject traffic signal installation, together with Check No. 432 from E & Z Development Co., in the amount of $2,000. to cover the estimated cost of design work.

Would you please arrange for the deposit of the check.

L. E. George
Traffic Engineer Supervisor

LPD:rah

Attachment

cc: C. O. Fredrickson
M. C. Holmes

PROJECT MANAGEMENT
PME ☐ CCE ☐ OM ☐
LGE ☑ FAE ☐ OPE ☐
MAY 26 1978
TAA ____ File: PM ____ FA ____
LG ____ OP ____

81 128-1387

. 1979 Silverton Rd. N.E. 8965
. @ Cordon Rd. N.E. E. of
. Salem (Traffic signal)

C+A 7046-7-26-79

8965

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
Douglas S. Coats No. 8841	Malheur River (Clark Lane) Bridge Harney County	February 11, 1980
Fred H. Slate Co. No. 8756	Remote Section Coos County	February 11, 1980
J. C. Compton Co. No. 8675	Lincoln County Line-Heceta Head Lincoln & Lane Counties	February 11, 1980
Baker Rock Crushing Co. No. 8774	Tualatin Valley Hwy.-S. Nectarine St. (Cornelius) Washington County	February 12, 1980
Jarl Const., Inc. No. 8910	Moro Rock Production Sherman County	February 12, 1980
Hamilton Construction Co. No. 8869	No. 1 Drain & Lost River Diversion Channel Bridges Klamath County	February 18, 1980
R. A. Hatch Co. No. 8767	Agate Beach-NE 20th St. (Newport) Lincoln County	February 19, 1980
Morse Bros. Lincoln Ready Mix, Inc. No. 8983	Depoe Bay (Ellingson St.-Coast Ave.) Lincoln County	February 20, 1980
DANCO Construction, Inc. No. 8920	Hubbard/Broadacres Rd.-Case Rd. Marion County	February 22, 1980
Hamilton Electric, Inc. No. 8931	Pac. Hwy. W @ 19th St. (McMinnville) Yamhill County	February 22, 1980
Central Oregon Pavers, Inc. No. 8932	Crook Co. Line-Ochoco Cr. & Prineville-Dry Creek Crook County	February 22, 1980
Hertz Electric, Inc. No. 8965	Silverton Rd. NE @ Cordon Rd. Marion County	February 25, 1980

Contractor and Contract No.	Section and County	Acceptance Date
Roy L. Houck Const.Co. No. 8942	Ochoco Hwy.-Ochoco Ranger Station Crook County	February 25, 1980
J. B. Steel, Inc. No. 8831	Portland St.-S. 6th Bikeway (Klamath Falls) Klamath County	February 26, 1980
Hamilton Electric,Inc. No. 8911	Wilsonville Rd. @ Boones Ferry Rd. (Wilsonville) Clackamas County	February 26, 1980
Houck-McCall Corp. No. 9047	Long Butte Rock Production Deschutes County	February 27, 1980
Mill Plain Electric, Inc. No. 8846	Cape Creek Tunnel Lane County	February 28, 1980
Cascade Const. Co.,Inc. No. 8752	Pac. Hwy. W-SW 3rd St. (Sherwood) Washington County	February 29, 1980
L. W. Hembree Co. No. 8858	NW St. Helens Rd. @ NW Bridge Ave. Multnomah County	February 29, 1980
C. G. Gredvig, Inc. No. 9005	Coast Range Summit-S. Fork Gales Cr. Washington County	March 4, 1980
Eucon Corp. No. 8886	Pendleton-McKay Reservoir Umatilla County	March 7, 1980
Hamilton Electric,Inc. No. 8930	Empire/Coos Bay Hwy. @ K-Mart Access (Coos Bay) Coos County	March 7, 1980
Copeland Paving,Inc. No. 8896	Watkins St., Schumacher St., Kerby St. (Cave Jct.) Josephine County	March 7, 1980
F. H. McEwen Const.Co. No. 8761	Wagontire-Lake County Line Harney & Lake Counties	March 10, 1980

March 11, 1980

C. T. Keasey
Asst. State Highway Engineer

8965

February 27, 1980

Fireman's Fund Insurance Company
Fidelity & Surety Department
121 S.W. Salmon Street, Suite 900
Portland, OR 97204

COM 5
Contract #8965

Gentlemen:

Contract No. 8965 awarded to Hertz Electric, Inc. for traffic signal installation on Silverton Road Northeast at Cordon Road Northeast in Marion County was completed on October 9, 1979, and accepted by the State Highway Division on February 25, 1980.

Final payment in the amount of $1,123.57 will be released to the contractor after March 3, 1980. The total contract amount is $16,217.40. No work was performed under force account.

No claims for labor or material have been filed with us against the performance bond on this contract.

Sincerely,

Robert W. Cormack
COMMISSION SERVICES

dms
cc: Hertz Electric, Inc.
P. O. Box 377
Albany, OR 97321

Homer H. Smith Insurance Agency
1560 Commercial St., S.E.
Salem, OR 97302

bc: C. T. Kenney
Walt Hart
V. E. Shoog Attn: Dick Hacak
C. O. Fredrickson

8965

STATE OF OREGON

INTEROFFICE MEMO

Contract Payments DEPT. 378-6594 TELEPHONE

FILE: CON 5

TO: Bob Gormsen
Manager, Commission Services

DATE: February 21, 1980

FROM: C. T. Keasey
Assistant State Highway Engineer

SUBJECT: Highway Contract Acceptance

NOTED
H. S. COULTER

The contractor has completed all work according to specifications and I hereby accept the following contract as of February 25, 1980.

Contract	8965, Work Completed October 9, 1979
Project	Silverton Rd. NE @ Cordon Rd.
Highway	County Road (Silverton Rd. NE)
County	Marion
Type of Work	Traffic Signal Installation
Contractor	Hertz Electric, Inc.

RDC:mk

cc: H. S. Coulter
Walter Hart
R. D. Church

RECEIVED
STATE HWY ENGR
FEB 26 '80
REFER TO
FOR
Info. Inves. R/D D/R Sign Act. File

8965

FORM 81-736-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: SILVERTON RD. @ CORDON RD.		WEEK ENDING: 10/20/79
		SECTION PREFIX: 124-8221
HIGHWAY: COUNTY RD. (SILVERTON RD.)		COUNTY: MARION
NAME OF JOB: SILVERTON RD. NE. @ CORDON RD. NE.	KIND OF WORK: TRAFFIC SIGNALS	
CONTRACTOR: HERTZ ELECTRIC, INC.	CONTRACT NUMBER: 8965	FEDERAL AID PROJECT NUMBER: STATE
DATE OF CONTRACT: 7/13/79	DATE WORK STARTED: 8/16/79	ESTIMATED COMPLETION DATE: 10/22/79
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN 0 SUPERVISION:	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 90	CALENDAR DAYS USED 77
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED 85
PROJECT AUTHORIZATION: $ 34,072.91		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST 100
EXCLUSIVE OF ENGINEERING: $ 31,097.11	ENGINEERING AUTHORIZATION $ 2,975.80	
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 31,097.11	ENGINEERING COST TO DATE $ 1,200.00	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION 100
ESTIMATED PERCENT: OVERRUN / UNDERRUN ____ %	PERCENT OF AUTHORIZATION 40 %	DATE PROJECT WAS COMPLETED:

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		
N/A							

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY				
MONDAY				
TUESDAY 9		77		CONTRACT COMPLETE
WEDNESDAY				
THURSDAY				
FRIDAY				
SATURDAY				

RECEIVED
OCT 23 1979
CONSTRUCTION BRANCH

Kessler, Richards, Jackmond, Berg, Hopkins, Moses, Williams, Widmer, Johnson, Gebauer, Glenn, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY	
MONDAY	NO CONTRACTOR ACTIVITY THIS WEEK
10/16/79 TUESDAY	FINAL INSPECTION: G.W. WIMER, DAVE WEAVER, WARREN MUELLER, AND DAVE STEENSON (MARION CO.)
WEDNESDAY	
THURSDAY	
FRIDAY	
SATURDAY	

REMARKS

JOB COMPLETE - LAST REPORT

RECEIVED
OCT 23 1979
CONSTRUCTION
BRANCH

SIGNED Warren E Mueller LOCATION

WARREN E. MUELLER, RES. ENGINEER, SALEM

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

8965

July 26, 1979

Board of County Commissioners
Marion County
Courthouse
Salem, OR 97301

Attention: Edwin P. Morgan
County Clerk

MISC. CONTRACTS and
AGREEMENTS No. 7046

Gentlemen:

Attached are fully executed copies of the following two agreements:

Improvement of the Battle Creek-North Jefferson Interchange Section of the Pacific Highway.

Installation of traffic signals on the Silverton Road at Cordon Road.

We have retained fully executed copies of each agreement for the Transportation Commission's files.

Sincerely,

C. W. Head
COMMISSION SERVICES

fkm

Att.

cc Don Harwell (conf. agrees. of each att.)

2965

June 29, 1979

Marion County Board of Commissioners
Courthouse
Salem, Oregon 97301

Attn: John Anderson
County Engineer

Gentlemen:

On June 28, 1979, the lowest of 3 bidders on the Silverton Road at Cordon Road Section was Herrs Electric Inc., P.O. Box 577, Albany, Oregon 97321, which bid is approximately 20% greater than our estimate. Since this is above the 10% limit it will be your responsibility to either accept or reject the project. If the County does decide to proceed with the project the following advance deposit is required from the County.

Bid Items	$17,068.00
Permanent Pavement Striping	$ 1,000.00
State Furnished Signal Materials	10,690.00
Signal Controller Testing (Engineering)	1,000.00
4 1/2% Contingencies	1,339.00
Construction Engineering	2,975.60
Preliminary Engineer	1,900.00
ESTIMATED TOTAL COST	$35,900.60

city will do

County's Advance Deposit: say $35,900.00
In accordance with Agreement No. 7046.

Within 20 days following the opening of bids, County shall deposit with State a sum of money equal to 100 percent of the estimated total cost of construction. No contract shall be awarded until said advance deposit has been received by State, your advance deposit, should be in this office no later than July 20, 1979.

Please make your check for $35,900.00, payable to the Oregon State Highway Division. Send the check to Highway Accounting, Room 434, Transportation Building, Salem, Oregon 97310.

Very truly yours,

D. E. Dunn
Operations Programming Engineer

PH:pf

bcc w/AD # 649: Phil Stearns, Federal Aid Specialist
Vern Shoeg - Please return completed AD # 649 when check is received.

Rec. 7-13-79
$ 35,800.00
Amended Order
Notified Clerk (PB)

							40.10		40.10	40.10
				** JOB TOTALS **			40.10	**	40.10 **	40.10
TRAFFIC LIGHT INST	CONT NO		FA PROJ NOS							
	124	8211	905	00			131.99		131.99	131.99
	124	8211	911	00			1,319.86		1,319.86	1,319.86
	124	8211	921	00			205.44		205.44	205.44
				** JOB TOTALS **			1,657.29	**	[illegible] **	[illegible]
GEN SERVS-8 SIGNS FOR SHUTTLE	CONT NO		FA PROJ NOS							
	124	8213	199	00			130.00		130.00	130.00
				** JOB TOTALS **			130.00	**	130.00 **	130 00
	510	8205	950	00					218.93	218.93
				** JOB TOTALS **				**	218.93 **	218.93
				MAJOR CLASS 82 TOTALS			52,193.20CR		1,027,084.48	3,259,669.45
PICHLAND ROCK PROD PROJ	CONT NO	8697	* FA PROJ NOS							
	001	8332	201	00						87,865.29
	001	8332	204	00					4,393.26	
	001	8332	206	00					7.32	7.32
	001	8332	290	00					95,166.31CR	95,166.31C
	001	8332	900	00					3,290.86	7,260.10
	001	8332	900	01						33.60
				** JOB TOTALS **				**	87,474.87CR**	
PAULINA ROCK PROD PROJ	CONT NO	8498	* FA PROJ NOS							00
	007	8310	201	00						48,341.22

TRAFFIC LIGHT INST	CONT NO		FA PROJ NOS						
	124	8211	905	00	131.99		131.99		131.99
	124	8211	911	00	1,319.86		1,319.86		1,319.86
	124	8211	921	00	205.44		205.44		205.44
			** JOB TOTALS **		1,657.29	**	[illegible]		[illegible]
GEN SERVS-8 SIGNS FOR SHUTTLE	CONT NO		FA PROJ NOS						
	124	8213	199	00	130.00		130.00		130.00
			** JOB TOTALS **		130.00	**	130.00	**	130.00
	510	8205	950	00			218.93		218.93
			** JOB TOTALS **			**	218.93	**	218.93
			MAJOR CLASS 82 TOTALS		52,193.20CR		1,027,084.48		3,259,669.45
PICHLAND ROCK PROD PROJ	CONT NO 8697 *		FA PROJ NOS						
	001	8332	201	00					87,865.29
	001	8332	204	00			4,393.26		
	001	8332	206	00			7.32		7.32
	001	8332	290	00			95,166.31CR		95,166.31C
	001	8332	900	00			3,290.86		7,260.10
	001	8332	900	01					33.60
			** JOB TOTALS **			**	87,474.87CR	**	
PAULINA ROCK PROD PROJ	CONT NO 8498 *		FA PROJ NOS						
	007	8310	201	00					00
									48,341.22

8905

MARION COUNTY

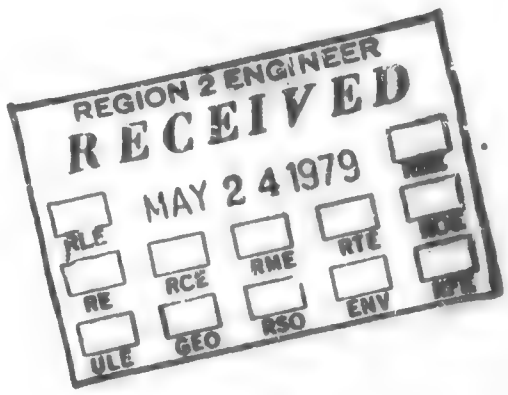
DEPARTMENT OF PUBLIC WORKS

300 SENATOR BLDG.
220 HIGH STREET NE
SALEM, OREGON 97301

JOHN A. ANDERSON
Director & County Engineer

TELEPHONE 588-5036
AREA CODE 503

May 22, 1979



Mr. Phillip O. Stearns
Region Federal Aid Specialist
Oregon Department of Transportation
Oregon State Highway Division
Region II - 2960 E. State Street
Salem, Oregon 97310

RE: Traffic Signals: Silverton Road - Cordon Road.

Dear Mr. Stearns:

Preliminary plans for traffic signals at Silverton Road have been reviewed in accordance with your letter request of May 15, 1979. The signed copy returned herewith has been approved subject to the following comments:

a. Location of Pole No. 1 should be reexamined considering possible damage by traffic short-cutting the curve. Our recommendation is to change the 16-foot setback from Silverton Road to 22 feet. A drainage channel under Silverton Road lies just west of this point and additional pole burial depth may be warranted. The backguy anchor position should also be checked for possible conflict with the drainage channal.

b. It is recommended that the pedestrian pushbutton post on the NW corner be moved to a point 4 feet from existing Pole No. 2.

c. Location of Pole No. 3 should be reexamined for clearance from Cordon Road. If practicable, the 5-foot distance shown should be increased to 20 feet. Any conflict between Pole No. 3 and overhead telephone lines or power lines should be checked.

d. The eastern walkway crossing Silverton Road should be eliminated. Because of the short sight distance from approaching westbound traffic, all pedestrians crossing Silverton Road should utilize the western crosswalk.

e. It may also be appropriate to install a post-mounted "SIGNAL AHEAD" sign on Silverton Road 400 feet west of Cordon Road to alert eastbound traffic of the signals.

Above comments reflect changes where Marion County has widened gravel shoulders in the intersection area. Marion County also intends to pave the corners after completion of the signal project to establish 25 foot radii as shown on the drawings.

Very truly yours,

John A. Anderson
Director of Public Works

G. T. Grove

George T. Grove
Supervising Engineer

JJG:lk

cc: L. E. George
Forrest Jones

Attachment

B. T. Lane

COUNTY APPROVAL

5/22/79

DATE

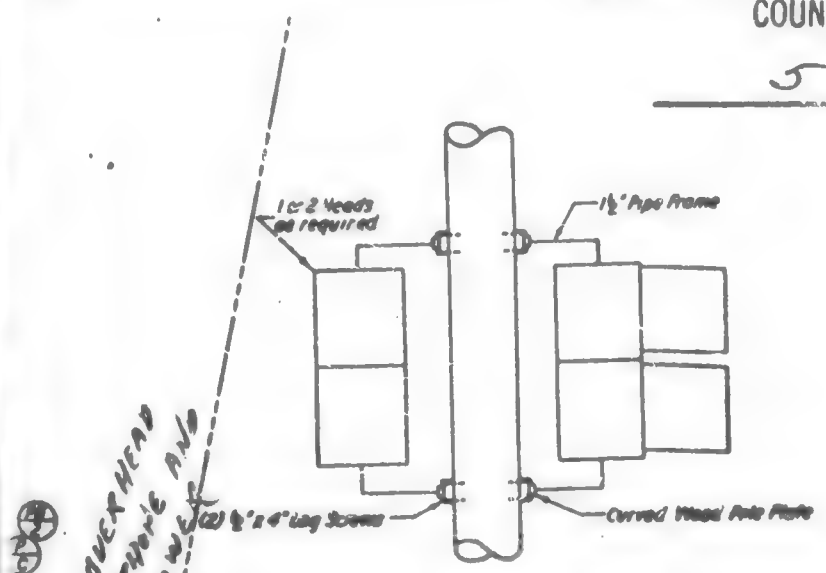
SIGNAL PLAN

SCALE 0 40 80 FEET

PRELIMINARY COPY

SUBJECT TO CHANGE

MAY 18 1979


1 or 2 Heads as required
1½" Pipe Frame
(2) ½" x 4" Lag Screws
Curved Wood Pole Plate
OVERHEAD PHONE AND POWER
Pole No. 3
600'± from "STOP" line (Field Located)
ROAD
Pole No. 4

PEDESTRIAN SIGNAL
WOOD POLE MOUNTING

LEGEND

- Existing power pole (power source)
- Install five-phase, fully actuated controller in type "P" cabinet
- Install 40' class 4 treated wood pole
- Install 30' class 4 treated wood pole
- Existing wood pole (utility)
- Install phase (Ph) vehicle signal
- Install type (T) modified pedestrian signal
- Install terminal cabinet
- Install 3/8" galvanized steel messenger cable
- Existing service cabinet (Remove)
- Existing meter service (Remove)
- Install phase (Ph) pedestrian pushbutton with instruction sign
- Install (S") look electrical conduit
- Install (#)-(#) wire on (#) control cable (s)
- Install (#) No 14 type THHN wires
- Install (#) No (#) type TW wires
- Install one No 8 type THHN wire (signal system common)
- Install bondguy with anchor
- Install 120 volt meter base
- Install service cabinet with 30 amp circuit breaker
- Install service cabinet with 20 amp circuit breaker
- Install post mounted "[illegible]" 30-3-25
- Install pole mounted "[illegible]" 30-3-25
- Install 8" flashing beacon

Ph = Phase shown — # = #14 wire size

T = Type shown — # = Number of cables

M = Number shown — ### = 12", 16", 18"

Install wood pedestrian pushbutton post

TRAFFIC ENGINEER 5/10/79 DATE	OREGON STATE HIGHWAY DIVISION TRAFFIC ENGINEERING SECTION TRAFFIC SIGNAL INSTALLATION SALVERTON RD N.E. AT CORDON RD. N.E. SEC. COUNTY ROAD (SALVERTON RD. N.E.) MARION COUNTY
	DATE _____ NO. _____ NO. DWGS. _____

2765

Section Silverton Road N.E. at Cordon Rd. N.E. Programming Estimate $ _____

Highway County Road (Silverton Rd. N.E.) Project Length —

County Marion 5-15-79 Completion Time 90 calendar days

Kind of Work Traffic Signal Installation _____

Prefix 124-8211 Project No. STATE

ESTIMATED CONSTRUCTION AUTHORIZATION

Estimated Contract Amount		$ 14,180.00
Anticipated Additional Items:		
Royalty Payment		
Building Permit Fees		
Slide Correction		
Railroad Protective Costs		
Other Railroad Costs		
Permanent Signing		
Permanent Pavement Striping	1,000	
Temporary Pavement Striping		
Remove Pavement Striping (Exist. & Temp.)		
Temporary Erosion Control		
State Furnished Signal Materials	10,690	
Install Water Meter		
Furnish Water		
Laboratory Fees		
On the Job Trainees		
State Responsibility for Damages		
Signal Controller Testing (Engineering)	1,000	
Bikeway Signs		
Furnish Mail Box Posts		
Adjust Utilities _____		
_____		
_____		
_____		
Misc. Permit Fees _____		
_____		
		$ 12,690.00
		$ 26,870.00
Contingencies (4-1/2%)		1,209.15
Engineering (10 %)		2,687.00
SUBTOTAL		$
Credit for _____		
Estimated Net Authorization, Construction		$ 30,766.15

APPROVED

_____

Road Design Engineer

(5/15/79 ✓)

OREGON STATE HIGHWAY DIVISION
SUMMARY--BID SCHEDULE--COST ESTIMATE

Sheet 1 of 1
Date 5-15-79

Section Silverton Road N.E. at Cordon Rd. N.E. County Marion

Kind Of Work Traffic Signal Installation Length — Name Butler-6292

No	Item	Code	Unit	Quant.	Unit Cost	Total
	Temporary Protection and Direction of Traffic		Lump Sum	All	Lump Sum	550.00
	Temporary Signs		Sq. Ft	125	6.00	750.00
	Flagmen		Hour	40	22.00	880.00
	Traffic Signal Installation, Complete		Lump Sum	All	Lump Sum	12,000.00
	Total					14,180.00

MARION COUNTY

BOARD OF COMMISSIONERS

COURTHOUSE, SALEM, OREGON, 97301

COMMISSIONERS
Harry Carson, Jr., Chairman
Randall Franke
Pat McCarthy

EXECUTIVE OFFICER
Harold F. Brauner

LEGAL COUNSEL
Frank C. McKinney

TELEPHONE 588-5212
AREA CODE 503

May 2, 1979

Mr. C.O. Fredrickson
Region II Engineer
Oregon Department of Transportation
Oregon State Highway Division
Region II, 2960 E. State Street
Salem, Oregon 97310

RE: Traffic Signal at Silverton Road and Cordon Road.

Dear Mr. Fredrickson:

Confirming informal agreement between Mr. L. E. George (State) and Mr. John A. Anderson (County), request is hereby made for State to perform technical services for County on a County Funded project to provide a traffic signal at the intersection of Silverton Road and Cordon Road, all as set forth hereunder. Description and division of work is proposed as follows:

NOTED L. E. GEORGE

I. County will:

A. Perform required topographic survey of area, including utility locations.

B. Reimburse State for Engineering work done for County, for State-furnished materials utilized in the project, and for amount of the construction contract plus related engineering costs.

C. Accept the work upon satisfactory completion.

II. State will:

A. Perform Preliminary Engineering and prepare final drawings, specifications, and contract documents.

B. Advertise for bids, award, and administer a contract for furnishing and installing traffic signals and appurtenant items. State will do construction engineering.

C. Furnish from State stocks any long-lead items which would otherwise delay completion of the contract.

D. Maintain detailed cost records and submit an invoice to County covering State's costs incurred in the performance of work under II A, B, and C.

NOTED DWAYNE HOFSTETTER

RECEIVED
MAY 3 1979
TRAFFIC ENGINEERING

In addition to the above it is expected that either party will initiate timely coordination as necessary to the expeditious and successful completion of State's performance of requested technical services. As previously discussed, this project should be completed prior to September 1, 1979. It is understood that the current State estimate of project cost is approximately $30,000.

BOARD OF COUNTY COMMISSIONERS
FOR MARION COUNTY, OREGON

Chairman

Commissioner

Commissioner

JAA:lk

cc: Fred Klaboe
L. E. George
Phil Stearns
John Anderson

8965

Form 81-734-3189

Oregon State Highway Division

Order to Render Service

(Or to Furnish Materials)

Party Requesting Service:

Marion County Board of Commissioners

Order No. 1

Date April 25, 1979

By: John Anderson

Director of Public Works
(Official Capacity)

Prefix and account number to which work is to be charged 124-8211

Description and Location of Work To Be Performed or Materials To Be Furnished:

Install two-phase, fully actuated traffic signal with a five-phase controller at the intersection of Silverton Road and Cordon Road. The installation is to be temporary in nature so wood poles will be used. State will design, and furnish materials. Installation to be performed under a 90-day labor contract.

Estimate of Quantities and Cost

$50,000

Basis of Payment:

- ☐ Monthly payments
- ☐ Single payment on completion of work
- ☒ Other basis as follows: Advance deposit with balance due at time of award of contract.

Amount of advance deposit (if any) $

Deposit received by Secretary on

Authority from Requisitionist:

- ☐ Agreement dated Agreement being processed.
- ☐ Letter to , date
- ☒ Oral request to L.E. George, date April 6, 1979

Department Authority:

- ☐ Order of State Highway Engineer
- ☐ Head of branch or section issuing order

Field information submitted by in letter dated

Expected date of completion of work or delivery of materials

Superintendent or engineer responsible for performance of work and submission of information for billing

Record of billing requests:

Number			
Date			
Amount			

Instructions: Section head or staff engineer approving order will send original copy to Project Management and will retain duplicate copy. He will also send copies to interested region engineer, resident engineer and/or district engineer.

Order prepared by REGION II Section

Signed L. O. Hedrickson

REGION II ENGINEER

SP*19713-734

8765

STATE OF OREGON

INTEROFFICE MEMO

Highway - Traffic (DEPT.) 378-6537 (TELEPHONE)

TO: D. H. Moehring
Assistant State Highway
Project Management Branch

ATTN: G. W. Wimer

DATE: April 23, 1979

FROM: L. E. George
Traffic Engineer

SUBJECT: Temporary Traffic Signal
Silverton Road at Cordon Road
Marion County

Recent discussions have been held with the Marion County Board of Commissioners and the Director of Public Works, John Anderson, concerning the installation of a traffic signal at the subject intersection. There have been a number of accidents at this location and much public input requesting that something be done as soon as possible. The County is very concerned and has asked for our help in getting a signal installed.

Since a construction project in this area is planned for the future, it is proposed that the signal be a temporary type with wood poles. The County does not have staffing to do the engineering design or construction work and would like for us to do it. To expedite construction, the possibility of using materials from the State stockpile was discussed with F. B. Klaboe and he approves.

The signal installation is to be funded 100 percent by the County and to expedite matters, it should be installed under a 90-day labor contract. It is estimated to cost $50,000 to install a two-phase, fully-actuated signal with a five-phase controller. The five-phase controller will be needed in the future for left-turn phases. Would you please expedite the preparation of an agreement for the subject signal installation and we will do likewise in preparing plans. It is planned that the contract will be let at the June 1979 contract letting.

L. E. George
Traffic Engineer

DKH:ds

cc: F. B. Klaboe
H. S. Coulter
E. S. Hunter
C. T. Keasey
J. H. Versteeg
C. O. Fredrickson
D. E. Swan - Please add to PMS.
Robert Judson

PROJECT MANAGEMENT
PME ☐ CCE ☐ O
LCE ☑ FAE ☐ OE
APR 24 1979
File: PM FA
TAA Holmes LG OP

1979 Col. R. Hwy. @ 8966
Umatilla R. Br. Spur in
Umatilla (Traffic signal)

#8966 — 2-12-81 — L

STATE COPY

cc: State (H S Coulter)

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

FINAL ACCEPTANCE REPORT

REGION NO.	REPORT NO.	COUNTY	DIVISION
10	2	Umatilla	Oregon
DATE OF REPORT	**REPORT MADE BY**		**PROJECT NO.**
2-12-81	David B. Carter, Area Engineer		HES-18(2)
COMPLETION DATE	**ACCEPTANCE DATE BY CONTRACT AGENCY**	**TIME ELAPSED**	**CONTRACT TIME**
4-15-80	8-4-80	100 %	220 CD
APPROVED EXTENSIONS	**LOCATION**		
None	Columbia River Highway at Umatilla Bridge Spur in City of Umatilla, Umatilla County, Oregon.		

*The PR-47, Statement of Materials and Labor Used by Contractors on Highway Construction Involving Federal Funds, has been submitted.
*A copy of the State's materials certificate is attached to the Division office copy of this report.
There is compliance with section 1.23 of the Regulations pertaining to encroachments on the right-of-way.

REMARKS: *The project has been completed in reasonably close conformity with the approved plans and specifications including authorized changes and extra work.*

COLUMBIA RIVER HIGHWAY @ UMATILLA BRIDGE SPUR
COLUMBIA RIVER HIGHWAY
Traffic Signal Installation

This project provided for the installation of traffic signals at the above intersection.

The final cost of the original contract items was $79,939.27 or a 2.05 percent overrun of the original contract bid amount of $78,332.50. The final project amount including all changes and engineering was $95,149.02.

A final inspection of the project was made on June 17, 1980. At that time a right turn signal displayed a green arrow in conflict with a pedestrian movement. Resident Engineer Van Cleave has indicated this situation has been corrected.

All participating work has been completed.

orig to: 2-20-81

RECEIVED STATE HWY ENGR FEB 20 '81 REFER TO FOR Info Inves R/D D&R Sign Mtce File

*NOTE: Not applicable for direct federal projects.

ACCEPTANCE OF PROJECT IS RECOMMENDED		ACCEPTED BY FEDERAL HIGHWAY ADMINISTRATION	
SIGNATURE Original Signed by D. B. Carter Area Engr David B. Carter		SIGNATURE Original Signed By G. K. HOSSNER Field Operations Engineer G. K. Hossner	
TITLE Area Engineer	DATE 2/20/81	TITLE Field Operations Engineer	DATE 2/20/81

FORM FHWA-1446 B (12-73) FORMERLY PR-33E

Previous Editions of PR-33E Will Not Be Used.

U. S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

#8966 LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO. HES-18(2)

STATE PROJECT NO. See below

FROM: G. L. Green, Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO. 80374

COUNTY NAME Umatilla

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

TO:

Mr. H. S. Coulter
State Highway Engineer, ODOT
Salem, Oregon

RECEIVED
STATE HWY ENGR
OCT 2-'80

10-2 orig

REFER TO Maebrug

FOR

Unit | Inves | R/D | D/R | Sign | Act | File

DATE PS&E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER	STATE ROUTE NUMBER
6-6-79	7-28-80	Primary 18	Primary 2

GENERAL LOCATION:

Columbia River Hwy. at Umatilla Bridge Spur Section

GENERAL DESCRIPTION OF WORK:

Permanent Signing

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
☐ LOCATION ONLY
PRELIMINARY ENGINEERING FOR SURVEY AND PLAN
☐ PREPARATION
☐ OTHER (Specify)

☐ ACQUISITION OF RIGHT-OF-WAY
CONSTRUCTION - ADVERTISE FOR RECEIPT
☐ OF BIDS
☒ CONSTRUCTION TO PROCEED ON ~~XXXXXXXX~~ ~~XXXXXXXXXX~~ FORCE ACCOUNT BASIS

REMARKS

This will confirm the advance authorization date of July 28, 1980, as requested in Mr. Keasey's letter of September 10, 1980, as being in the public interest for the use of State Forces to proceed with the above work. State Force Order No. 2 is approved for TEC NTE $300. - Federal Funds $270.

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
9-29-80	G. K. Hansen	for Division Administrator

FORM PR-1240 (REV. 6-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1970—721-918

8966

August 11, 1980

United Pacific Insurance Co.
Fidelity & Surety Department
P. O. Box 1216
Tacoma, WA 98401

OCH 3
#8966

Gentlemen:

On August 6, 1980, we wrote to you concerning release of final payment on Contract No. 8966 awarded to Hamilton Electric, Inc. for work on the Columbia River Highway at the Umatilla Bridge Spur (Umatilla) Section in Umatilla County.

Final payment on this contract is $3,994.40 and the total contract amount is $79,939.27. No work was performed under force account.

Sincerely,

Robert W. Gunsaru
Contracts and Services

kkr

cc: United Pacific Insurance Company
P. O. Box 1760
Eugene, OR 97440

Hamilton Electric, Inc.
2[illegible] West 5th
P. O. Box 708
Eugene, OR 97440

bc: C. T. Kenney
Walt Hart
W. E. Schwartz

8966

REPORT OF ACTION UNDER DELEGATED AUTHORITY BY

ASSISTANT STATE HIGHWAY ENGINEER

8-6-80

On behalf of the Commission and under authority delegated to me to accept contracts completed according to specifications, I accepted the following:

Contractor and Contract No.	Section and County	Acceptance Date
R. A. Hatch Co. No. 8971	Columbia River (Interstate) Bridge Multnomah Co., Oregon Clark Co., Washington	July 14, 1980
Jarl Construction, Inc. No. 8782	North Unit, Condon-Thirtymile Creek Gilliam Co.	July 15, 1980
R. L. Coats No. 8753	Baldock Slough-S. Baker Intchge. Baker Co.	July 18, 1980
Cascade Constr. Co., Inc. No. 8957	Lawnfield Rd.-Clackamas Hwy. Clackamas Co.	July 18, 1980
J. C. Compton Co. No. 8985	Carus Jct.-Woodburn-Estacada Hwy. Clackamas Co.	July 18, 1980
Cushing Bros., Inc. No. 9099	Dundee (S.W. 5th St.) Yamhill Co.	July 21, 1980
J. C. Compton Co. No. 8960	Castle Rock-Cedar Creek (M.P. 4.8-M.P. 16.5) Tillamook & Yamhill Counties	July 22, 1980
Holst Construction Co. No. 8842	Neal Creek Bridge Hood River Co.	July 24, 1980
A-1 Sandblasting & Steam-cleaning Co. No. 8714	Coos Bay (McCullough) Bridge Coos Co.	July 24, 1980
Hertz Electric, Inc. No. 9038	S. Ore. Ave. @ High School Entrance and Monroe St. @ Broadway Ave. (Burns) Harney Co.	July 24, 1980
Morse Bros. Inc. No. 8982	Corvallis/Newport Hwy. @ 19th St. (Philomath) Benton Co.	July 25, 1980
Cascade Constr. Co., Inc. No. 8923	Wilson River Hwy. Jct.-Vista Ridge Tunnel Washington and Multnomah Counties	July 29, 1980
Tawn Mar Constr. Co. No. 9065	Parsnip Creek Rock Production Lake Co.	July 29, 1980
L. W. Hembree Co. No. 8981	SW Capitol Hwy. @ SW Huber St. (Portland) Multnomah Co.	July 30, 1980

Contractor and Contract No.	Section and County	Acceptance Date
S. D. Spencer & Son No. 8003	Garden Valley Rd.-Fairgrounds Intchge. Douglas Co.	July 30, 1980
Hamilton Electric, Inc. No. 8966	Columbia River Hwy. @ Umatilla Br. Spur (Umatilla) Umatilla Co.	August 4, 1980
S. D. Spencer & Son No. 8501	Cottage Grove-Martin Creek Lane Co.	August 6, 1980
Tawn Mar Constr. Co. No. 9064	Drews Reservoir Lake Co.	August 6, 1980
W. R. Grasle Co. No. 9069	Scholls Hwy. @ SW 121st Ave. (Tigard) Washington Co.	August 6, 1980

August 6, 1980

C. T. Keasey
Asst. State Highway Engineer

8966

FORM 81-734-3001

OREGON STATE HIGHWAY DIVISION

FIELD ENGINEER'S WEEKLY REPORT

FOR CONSTRUCTION PROJECTS ONLY
CONSTRUCTION AND BRIDGE SECTION

SECTION: Columbia River Hwy @ Umatilla Br. Spur		WEEK ENDING: 6/21/80
		SECTION PREFIX: 30-1064
HIGHWAY: Columbia River Hwy		COUNTY: Umatilla
NAME OF JOB: Columbia River Hwy @ Umatilla Br Spur	KIND OF WORK: Guardrail and Traffic Signal Installation	
CONTRACTOR: Hamilton Electric, Inc.	CONTRACT NUMBER: 8966	FEDERAL AID PROJECT NUMBER: HES-18(2)
DATE OF CONTRACT: July 6, 1979	DATE WORK STARTED: October 9, 1979	ESTIMATED COMPLETION DATE: April 30, 1980
AVERAGE FORCE ON PROJECT FOR THE WEEK: MEN: 0 SUPERVISION: 0	SPECIFIED WORK DAYS	WORK DAYS USED
	SPECIFIED CALENDAR DAYS 220	CALENDAR DAYS USED 220
	SPECIFIED COMPLETION DATE	PERCENT OF TIME ELAPSED: 100%
PROJECT AUTHORIZATION: $ 92,782.21		PERCENT OF CONTRACT COMPLETED BASED ON ESTIMATED COST: 100%
EXCLUSIVE OF ENGINEERING: $ 81,032.50	ENGINEERING AUTHORIZATION (adj) $ 9,063.94 this week Ø	PERCENT OF CONTRACT COMPLETED BASED ON TOTAL AUTHORIZATION: 100%
ESTIMATED COST OF COMPLETED PROJECT, EXCLUSIVE OF ENGINEERING: $ 81,032.50	ENGINEERING COST TO DATE $ 9,063.94	DATE PROJECT WAS COMPLETED:
ESTIMATED PERCENT: OVERRUN/UNDERRUN . . . . . 01 %	PERCENT OF AUTHORIZATION . . . . . 100 %	April 15, 1980

ESTIMATED PERCENT COMPLETE (ROADWORK)

CLEARING	DRAINAGE	GRADING	BASE	OIL AND/OR PAVE.	MAT'L. PROD.		

	GRADING	SURFACING	MAINTENANCE MATERIALS	OIL & BITUMINOUS MACADAM	PAVING
MILES IN PROJECT					
MILES PARTIALLY COMPLETED					
MILES COMPLETED					
TOTAL ESTIMATED QUANTITIES (CONTRACT)					
TOTAL QUANTITIES CORRECTED TO DATE					
ESTIMATED QUANTITIES MOVED OR PLACED TO DATE					
AVERAGE DAILY QUANTITIES					
AVERAGE DAILY QUANTITIES NECESSARY TO COMPLETE PROJECT ON TIME					
NUMBER OF SHIFTS PER DAY					
HOURS PER SHIFT					

EQUIPMENT USED DURING THE WEEK:

None

ESTIMATED PERCENT COMPLETE (STRUCTURES)

BRIDGE NO.								
PERCENT								

	WEATHER	WORK DAYS CHARGED	HOURS DELAY	CAUSE OF DELAY
SUNDAY 15		0		
MONDAY 16		0		
TUESDAY 17		0		
WEDNESDAY 18		0		
THURSDAY 19		0		
FRIDAY 20		0		
SATURDAY 21		0		

RECEIVED
JUN 23 1980
CONSTRUCTION BRANCH

Kassel, Jackmond, Hopkins, Williams, Johnson, Gleen, Richards, Berg, Inloes, Widmer, Gebauer, Church

GENERAL DESCRIPTION OF ACTIVITIES FOR THE WEEK

SUNDAY 15	
MONDAY 16	
TUESDAY 17	
WEDNESDAY 18	
THURSDAY 19	
FRIDAY 20	
SATURDAY 21	

REMARKS

Semi-Final was submitted on June 17, 1980

This will be the last weekly on this project

RECEIVED
JUN 23 1980
CONSTRUCTION
BRANCH

SIGNED H.N. VanCleave Res. Engr. LOCATION Pendleton

PRIME RESIDENT SUBMIT 2 COPIES. WHEN BRIDGES AND GRADING BOTH ARE INVOLVED, SUBMIT 3 COPIES

SP-F216

8966 STATE COPY

OMB No. 04-R2089

TO BE COMPLETED BY FHWA MONTHLY TRANSACTION NO.	U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION	State Oregon County Umatilla Project No. HES 18 (2)
7-238	FEDERAL-AID PROJECT AGREEMENT 7-27-79	

The State, through its Highway Agency, having complied, or hereby agreeing to comply, with the applicable terms and conditions set forth in (1) Title 23, U.S. Code, Highways, (2) the Regulations issued pursuant thereto and, (3) the policies and procedures promulgated by the Federal Highway Administrator relative to the above designated project, and the Federal Highway Administration having authorized certain work to proceed as evidenced by the date entered opposite the specific item of work, Federal funds are obligated for the project not to exceed the amount shown herein, the balance of the estimated total cost being an obligation of the State. Such obligation of Federal funds extends only to project costs incurred by the State after the Federal Highway Administration authorization to proceed with the project involving such costs.

PROJECT TERMINI

Columbia River Hwy. @ Umatilla Br. Spur (Umatilla) Section

PROJECT CLASSIFICATION OR PHASE OF WORK	EFFECTIVE DATE OF AUTHORIZATION	APPROXIMATE LENGTH *(Miles)*
HIGHWAY PLANNING AND RESEARCH (HP & R)		
PRELIMINARY ENGINEERING		
RIGHTS-OF-WAY		
CONSTRUCTION	6-6-79	0.00
OTHER *(Specify)*		

FUNDS Pro Rata 90%

ESTIMATED TOTAL COST OF PROJECT	FEDERAL FUNDS
$ 91,637	$ 82,472

The State further stipulates that as a condition to payment of the Federal funds obligated, it accepts and will comply with the applicable provisions set forth on the reverse hereof.

OREGON STATE HIGHWAY DIVISION
(Official name of Highway Agency)

By [signature]

Asst. State Highway Engineer
(Title)

By For: H. S. Coulter

State Highway Engineer
(Title)

By

(Title)

U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

By [signature]
(Division Administrator)

For: G. L. Green

Date executed by Division Administrator JUL 27 1979

Form PR-2 (Rev. 10-75) PREVIOUS EDITIONS ARE OBSOLETE

AGREEMENT PROVISIONS

1. RESPONSIBILITY FOR WORK

a. Except for projects constructed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in compliance with the approved plans and specifications or project proposal which, by reference, are made a part hereof.

b. With regard to projects performed under Certification Acceptance procedures, the State highway agency will perform the work, or cause it to be performed, in accordance with the terms of its approved Certification, or exceptions thereto as may have been approved by the Federal Highway Administration.

2. HIGHWAY PLANNING AND RESEARCH (HP&R) PROJECT. The State highway agency will (a) conduct or cause to be conducted, under its direct control, engineering and economic investigations of projects for future construction, together with highway research necessary in connection therewith, pursuant to the work program approved by the Federal Highway Administration and (b) prepare reports suitable for publication of the result of such investigations and research, but no report will be published without the prior approval of the Federal Highway Administration.

3. PROJECT FOR ADVANCE ACQUISITION OF RIGHTS-OF-WAY. In the event that actual construction of a road on this right-of-way is not undertaken by the close of the tenth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

4. PRELIMINARY ENGINEERING PROJECT FOR PREPARATION OF RIGHT-OF-WAY PLANS OR FOR PREPARATION OF CONSTRUCTION PLANS, SPECIFICATIONS AND ESTIMATES. In the event that right-of-way acquisition for, or actual construction of the road for which this preliminary engineering is undertaken is not started by the close of the fifth fiscal year following the fiscal year in which this agreement is executed, the State highway agency will repay to the Federal Highway Administration the sum or sums of Federal funds paid to the highway agency under the terms of this agreement.

5. INTERSTATE SYSTEM PROJECT. (a) The State highway agency will not add or permit to be added, without the prior approval of the Federal Highway Administration any points of access to, or exit from, the project in addition to those approved in the plans and specifications for the project. (b) The State highway agency will not permit automotive service stations, or other commercial establishments for serving motor vehicle users, to be constructed or located on the right-of-way of the interstate system. (c) The State highway agency will not after June 30, 1968, permit the construction of any portion of the Interstate Route on which this project is located, including spurs and loops, as a toll road without the written concurrence of the Secretary of Transportation or his officially designated representative. The term 'toll road' does not include toll bridges or toll tunnels.

6. PROJECT FOR CONSTRUCTION IN ADVANCE OF APPORTIONMENT. (a) This project authorized pursuant to 23 U.S.C. 115 as amended, will be subject to all procedures and requirements, and conform to the standards applicable to projects on the system on which located, financed with the aid of Federal funds. (b) No obligation of previously apportioned Federal funds is created by this agreement, its purpose and intent being to provide that, upon application by the State highway agency, and approval thereof by the Federal Highway Administration, any Federal-aid funds of the class designated by the project number prefix, apportioned to the State under 23 U.S.C. 104 subsequent to the date of this agreement, may be used to reimburse the State for the Federal share of the cost of work done on the project.

7. STAGE CONSTRUCTION. The State highway agency agrees that all stages of construction necessary to provide the initially planned complete facility, within the limits of this project, will conform to at least the minimum values set by approved AASHTO design standards applicable to this class of highways, even though such additional work is financed without Federal-aid participation..

8. BOND ISSUE PROJECT. Construction, inspection and maintenance of the project will be accomplished in the same manner as for regular Federal-aid projects. No present or immediate obligation is created by this Agreement against Federal funds, its purpose and intent being to provide aid to the State, as authorized by 23 U.S.C. 122, for retiring maturities of the principal indebtednesss of the bonds referred to below. When the State requests Federal reimbursement to aid in the retirement of such bonds, the request will be supported by the appropriate certification required by 23 CFR Part 140, Subpart F, and Volume 1, Chapter 4, Section 8 of the Federal-Aid Highway Program Manual or the alternative State procedure set forth in the State's Certificate, and payment of the authorized Federal share will be made from appropriate funds available. If in any year there is no unobligated balance of any apportioned Federal funds available from which payments hereunder may be made, there will be no obligation on the part of the Federal Government on account of bond maturities for that year. Funds available to the highway agency for this project are the proceeds of bonds issued by the governmental unit indicated on the attached tabulation, pursuant to the authority and in the amounts by date of issue and beginning date of maturities set forth therein.

9. SPECIAL HIGHWAY PLANNING AND RESEARCH PROJECT. The State Highway agency hereby authorizes the Federal Highway Administration to charge the State's pro rata share of costs incurred against funds apportioned to the State under 23 U.S.C. 307 (c), as amended. In the event a project is financed with both Federal-aid funds and State matching funds, the State agrees to advance to The Federal Highway Administration the State matching funds for its share of the estimated cost. For a National Pooled Fund study, the State hereby assigns its responsibility for the work to the Federal Highway Administration. For an Intra-Regional Cooperative Study, the State hereby assigns its responsibility for the work to the lead State for the study.

10. PARKING REGULATION AND TRAFFIC CONTROL. The State highway agency will not permit any changes to be made in the provisions for parking regulations and traffic control as contained in the agreement between the State and the local unit of Government referred to in the paragraph on "Additional Provisions," without the prior approval of the Federal Highway Administration, unless the State determines, and the Division Administrator concurs, that the local unit of Government has a functioning traffic engineering unit with the demonstrated ability to apply and maintain sound traffic operations and control.

Oregon State Highway Division
Salem, Oregon, July 20, 1979

Federal-Aid Project
No. HES-18(2)

COLUMBIA RIVER HWY. AT UMATILLA BR. SPUR (UMATILLA)
COLUMBIA RIVER HIGHWAY
UMATILLA COUNTY

Project Agreement Estimate

Type Code Y101
Guardrail (Sta. 24+68)

Mobilization	All Required (22%)		$ 621.06
Temporary Protection and Direction of Traffic	All Required		794.00
Temporary Signs	150 sq.ft.	4.50	675.00
Temporary Barricades	2 each	29.50	59.00
Flagmen	80 hour	5.00	400.00
Earthwork	All Required		7,086.00
Class "B" Asphalt Concrete	55 ton	49.60	2,728.00
Guardrail, Type 2A	275 lin.ft.	28.34	7,793.50
Guardrail Anchors, Type 2	2 each	449.00	898.00
Rail End Pieces, Type "B"	2 each	118.00	236.00
Rail End Pieces, Type "C"	2 each	177.50	355.00
			$21,645.56

Anticipated Items

Permanent Pavement Striping	All Required	$ 1,200.00
Remove Pavement Striping	All Required	500.00
		$ 1,700.00
	Subtotal	$23,345.56
	Engineering	3,385.44
	Total	$26,731.00

Oregon State Highway Division
Salem, Oregon, July 20, 1979

Federal-Aid Project
No. HES-18(2)

Type Code Y031
Traffic Signal (Sta. 24+26)

Mobilization	All Required (78%)	$ 2,201.94
Traffic Signal Installation, Complete	All Required	54,485.00
	Subtotal	$56,686.94
	Engineering	7,219.06
	Engineering (Sig. Cont. Testing)	1,000.00
	Total	$64,906.00

Length of Project - - - 0.00 Mi.

SUMMARY OF FUNDS (90%)

Description	Total Cost	Federal Funds	State Funds
Guardrail	$26,731	$24,057	$2,674
Traffic Signal	64,906	58,415	6,491
Total	$91,637	$82,472	$9,165

Group 1 - 100%
Contract No. 8966
Prefix: 30-1931
Prefix: 30-1064

nig
8966

U.S. DEPARTMENT OF TRANSPORTATION - FEDERAL HIGHWAY ADMINISTRATION

LETTER OF APPROVAL AND/OR AUTHORIZATION

FEDERAL AID PROJECT NO.
HES-18(1)

STATE PROJECT NO.
See below

COUNTY NAME
Umatilla

PROGRAM STAGE (Check) ☐ 1. ☐ 2.

FROM:
G. L. Green
Division Administrator
Salem, Oregon

PROGRAM NO.

ITEM NO.
80374

TO:

Mr. F. B. Klaboe
Asst Director for Operations
State of Oregon, DOT
Salem, Oregon

DATE PS & E APPROVED	DATE AUTHORIZATION EFFECTIVE	FEDERAL ROUTE NUMBER / STATE ROUTE NUMBER
	9-21-78	Primary 18 / Primary 2

GENERAL LOCATION:

COLUMBIA RIVER HIGHWAY AT UMATILLA BRIDGE SPUR SECTION

GENERAL DESCRIPTION OF WORK:

Preliminary Engineering

YOU ARE AUTHORIZED TO PROCEED WITH THE WORK CHECKED BELOW

PRELIMINARY ENGINEERING TO DETERMINE
- ☐ LOCATION ONLY

PRILIMINARY ENGINEERING FOR SURVEY AND PLAN
- X ☐ PREPARATION Including Utility preparatory work. TEC NTE $4,200; FF $3,780
- ☐ OTHER (Specify)

- ☐ ACQUISITION OF RIGHT-OF-WAY
- ☐ CONTRICTION - ADVERTISE FOR RECEIPT OF BIDS
- ☐ CONSTRICTION - PROCEED ON AN AGREED PRICE AND/OR FORCE ACCOUNT BASIS

REMARKS

As requested in Mr. Swan's letter of 8-10-78, I concur that timesaving procedures enumerated in FHPM 6-8-2-2 are applicable and also concur that it is a non-major action as set forth in FHPM 7-7-2.

NOTED
F. B. KLABOE

Swan 9-26

DATE	SIGNATURE OF APPROVING OFFICIAL	TITLE
9-21-78	G. K. Hansen	for Division Administrator

FORM PR-1240 (REV. 8-70) EXISTING STOCKS OF FORM PR-1240 (REV. 6-68) WILL BE USED

☆ U.S. GOVERNMENT PRINTING OFFICE: 1976—626-787

Form FHWA 121 (Rev. 8-73)

8966

UNITED STATES GOVERNMENT

Memorandum

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
The Equitable Center, Suite 100
530 Center NE. - Salem OR 97301

DATE: August 18, 1978

In reply refer to: HPD.1-OR

SUBJECT: Oregon Project HHS-18(1)
Columbia River Highway @ Umatilla
Bridge Spur

FROM: G. L. Green, Division Administrator

NOTED
E. S. HUNTER

TO: Mr. E. S. Hunter, Manager
Technical Services Branch
Oregon Department of Transportation

We have carefully reviewed the program documents and supporting data for the subject project as submitted with Mr. Swan's August 10 letter and while it appears to be a needed improvement there is no indication that it was selected from a priority listing (FHPM 6-8-2-1 Par 6c(1)(b)) or that it was the product of the Highway Safety Improvement Program (FHPM 6-8-2-1 Section 5) as required for FHWA Division Engineer approval (FHPM 6-8-2-1 Par 6c(1)). This could be an excellent TOPIC type improvement under Primary funds if you should choose to program that way.

We are withholding action on this proposal pending your further advice. Please be reminded we are also holding program documents on Project HHS 4-1(2), Cove Point Road-Wocus Road Section for the same reason.

COPY 21-4
CON
The Dalles-
Calif.

G. L. Green

cc:
ODOT (DESwan)

NOTED
E. S. HUNTER

NOTED
E. S. HUNTER

cc Bud Grange

RECEIVED
TECHNICAL SERVICES
AUG 21 '78
REFER TO
D.E. Swan
FOR
Info | Level | R/D | U/R | Plan | Ck

August 10, 1978

TO G. L. Green, Division Administrator
Federal Highway Administrator

FROM D. E. Swan
Federal Aid Manager

SUBJECT Project Data Submission
Item No. 80374
Project No. HHS-18(1)
Columbia River Hwy. @ Umatilla Bridge Spur
Umatilla County

Attached data consists of PR-1 form with project maps, Intersection Investigation Report, Collision Diagram, Signal Warrant and other traffic data.

We request the following:

1) Concurrence that the project qualifies for the time-savings procedures enumerated in FHPM 6-8-2-1.

2) Concurrence that the project falls in the classification of nonmajor action as set forth in FHPM 7-7-2, Paragraph 10e, based on "Statewide Environmental Assessment for Highway Safety Improvement Projects" concurred in by FHWA Division office on Feb. 25, 1975.

3) Authorization to proceed with all phases of preliminary engineering including utility preparatory work at an estimated total cost of $4,200 with an obligation of $3,780 in federal funds.

DRH:dmc
Attachments
cc: L. E. George
W. E. Schwartz, Reg. 5

STATE OF OREGON
MICROFILMED PUBLIC RECORD

(IN ACCORDANCE WITH THE PROVISIONS OF ORS 192.040 THROUGH 192.070)

NAME OF AGENCY	OREGON DEPARTMENT OF TRANSPORTATION
TITLE OF RECORD SERIES	Construction Contracts
ARRANGEMENT OF RECORDS	by Contract Numbers
INDEX	

INDEXING BEGINS WITH : 8948 ENDS WITH 8966

FLASH CARDS:

REMARKS: _____

CAMERA: MAKE AND MODEL	FILM TYPE	REDUCTION RATIO	REEL NUMBER	PROJECT NUMBER
Bell & Howell File Master	16 mm	24 X	210	

CAMERA OPERATOR'S CERTIFICATION

I CERTIFY THAT I HAVE ON THIS 8th DAY OF March 1990 PHOTOGRAPHED THE DOCUMENTS APPEARING ON THIS ROLL OF FILM, THAT THEY ARE TRUE COPIES OF DOCUMENTS FOUND IN THE RECORD FILE DESCRIBED ABOVE, AND THAT THE INTEGRITY OF THE ABOVE DESCRIBED RECORD FILE HAS BEEN MAINTAINED ON THE FILM BY MICROFILMING EACH DOCUMENT IN THE EXACT ORDER IN WHICH IT WAS FOUND IN THE FILE WITH THE EXCEPTION, IF ANY OF DOCUMENTS OMITTED BECAUSE OF TECHNICAL DIFFICULTIES AND / OR BY ERROR, AS INDICATED ON THE FILM IN THE CROSS REFERENCE NOTES OR RETAKE CERTIFICATE.

I FURTHER CERTIFY THAT THE MICROFILM ON WHICH THESE DOCUMENTS ARE RECORDED WAS PROCURED AS PERMANENT FILM OF THE SLOW BURNING CELLULOSE ESTER OR POLYESTER TYPE KNOWN AS SAFETY PHOTOGRAPHIC FILM. THAT THIS FILM CONFORMS TO THE APPLICABLE STANDARDS OF THE AMERICAN NATIONAL STANDARDS INSTITUTE; AND THAT THE PROCESSING CONFORMS TO THE STANDARDS FOR PERMANENT FILM; AND THAT SAMPLES OF FILM PROCESSED BY THIS SERVICE ARE PERIODICALLY TESTED TO ASSURE CONFORMANCE WITH THESE STANDARDS.

Joan Cokeley

SIGNATURE OF CAMERA OPERATOR